

# University websites as facilitators of international student decision-making

International Business

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Anni Aarinen

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Selecting a university to study abroad is one of the most complex and expensive decisions that a student is likely to ever make. In order to make a well-informed decision, prospective students need access to information about issues that affect their purchase intention. University websites are one venue where this information can be offered. It is in a university's interest to ensure that the student's decision is based on realistic expectations, because these affect their satisfaction, which in turn affects their morale and the way they speak about the institution to others.

A lot of research into student decision-making has been conducted, but the work has been patchy, focusing mostly on Anglo-American countries, usually taking a single-country or even a single-institution approach. This thesis focuses on the Nordic countries, which form a special market with a unique model of no or low tuition fees and well-developed support systems. This market has not been studied as a region in the context of student decision-making before.

To determine the issues that are relevant to international student decision-making, a framework of 56 items influencing international student purchase decisions has been compiled based on the findings of previous studies on the subject. To see whether understanding of student decision-making has been applied to marketing communications practice, the framework was tested in an empirical study on the websites of altogether eight universities in Denmark, Finland, Norway and Sweden. These eight institutions all offer programmes in the field of technology and engineering, and they are each other's competitors.

The study included a qualitative content analysis of marketing communications materials targeted at prospective international Master's degree students on university websites. The purpose was to find out whether the content was relevant in terms of student decision-making, informative in terms of quantity of information, and persuasive in terms of attempting to emphasize the institution's strengths and stand out from its competitors.

The results were quite positive: on average, the institutions had offered extensive information about the issues important to students and also emphasized their strengths to some extent. Still, some individual issues had been mostly ignored, e.g. the expected earnings after graduation. Surprisingly, the institutions had strongly emphasized issues related to the host country and city, even though in the literature these aspects have not yet been recognized as priorities. Interestingly, there were only two items where only one institution had emphasised the topic, suggesting that it is challenging to stand out from the competitors when most of the institutions emphasize the same issues.

Key words: university websites, higher education institutions, international marketing, international students, student decision-making

Opiskelupaikan valitseminen ulkomailla on yksi monimutkaisimmista ja kalleimmista päätöksistä, joita opiskelija todennäköisesti koskaan tekee. Voidakseen tehdä valistuneen päätöksen potentiaalinen opiskelija tarvitsee tietoa niistä asioista, jotka vaikuttavat hänen päätökseensä. Yliopistojen verkkosivut ovat yksi kanava, jossa tätä tietoa voi tarjota. Yliopistojen kannattaa varmistaa, että opiskelijan päätös perustuu realistisiin odotuksiin, koska odotukset vaikuttavat myöhemmin opiskelijan tyytyväisyyteen ja sitä kautta heidän opiskelumotivaatioonsa ja sävyyn, jolla he puhuvat yliopistostaan muille ihmisille.

Opiskelijoiden päätöksenteko on tutkittu paljon, mutta tutkimus on ollut hajanaista keskittyen pääasiassa angloamerikkalaisiin maihin ja lähestyen yleensä vain yhtä maata tai yliopistoa kerrallaan. Tämä tutkielma keskittyy Pohjoismaihin, joiden markkinat korkeakoulutuksen alalla ovat ainutlaatuiset siellä käytössä olevan rahoitusmallin suhteen: lukukausimaksuja ei ole tai ne ovat pieniä ja opiskelijoille on tarjolla kehittynyt tukijärjestelmä. Opiskelijoiden päätöksentekoa ei ole aiemmin tutkittu Pohjoismaiden alueella muuten kuin yksittäisissä maissa.

Kansainvälisten opiskelijoiden päätöksenteolle relevanttien asioiden määrittelemiseksi tutkielmassa koottiin aiempien tutkimusten löydöksistä viitekehys, johon kuuluu 56 opiskelijan valintapäätökseen vaikuttavaa aihetta. Viitekehystä testattiin empiirisessä tutkimuksessa, jonka kohteena olivat yhteensä kahdeksan yliopiston verkkosivut Norjassa, Ruotsissa, Suomessa ja Tanskassa. Kaikki nämä yliopistot tarjoavat tutkintoja tekniikan ja insinööritieteiden alalla ja ovat toistensa kilpailijoita. Tarkoitus oli selvittää, onko saatavilla olevaa tietoa opiskelijoiden päätöksenteosta hyödynnetty käytännön markkinointiviestinnässä.

Tutkielman osana tehtiin laadullinen sisältöanalyysi yliopistojen verkkosivuilla olevista markkinointiviestintämateriaaleista, jotka oli suunnattu potentiaalisille kansainvälisille maisteriopiskelijoille. Tarkoitus oli selvittää, koskiko verkkosivujen sisältö relevantteja aiheita, oliko sisältö määrällisesti runsasta ja oliko sisältö vakuuttavaa siinä mielessä, että se korostaisi yliopiston vahvuuksia ja pyrki näin erottautumaan sen kilpailijoista.

Tulokset olivat varsin positiivisia: keskimäärin nämä yliopistot olivat tarjonneet runsaasti sisältöä näistä aiheista ja myös korostaneet vahvuuksiaan jossain määrin. Jotkin yksittäiset aiheet oli tosin jätetty lähes huomiotta, esimerkiksi valmistumisen jälkeinen odotettu tulotaso. Yllättäen yliopistot olivat voimakkaasti korostaneet kohdemaahan ja -kaupunkiin liittyviä asioita, vaikka näiden merkitystä ei ole aiemmissa tutkimuksissa pidetty erityisenä. Kiinnostavaa oli myös se, että löytyi vain kaksi aihetta, joita ainoastaan yksi yliopisto oli korostanut – se, että suurin osa yliopistoista korostaa samoja asioita, tekee aidosta erottautumisesta haastavaa.

Avainsanat: verkkosivut, yliopistot, kansainvälinen markkinointi, kansainväliset opiskelijat, päätöksenteko

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# 1 INTRODUCTION

Higher education is a very large market. According to Padlee et al. (2010), the worth of the education sector worldwide is hundreds of billions of US dollars. Competition for students is intensifying, in part because of the demographic downturn in college age student numbers in many developed countries (Hayes 2007). Competition occurs in both top-ranked and lower-ranked institutions: prestigious institutions compete with other respected universities for the most qualified applicants, and less selective institutions try to attract a suitable student population as well (Kotler & Fox 1995). Competition has increased also within particular regions: for example, among higher education institutions based in Europe, the integration of higher education due to the Bologna Process has increased competition in this market (Alexandre et al. 2008, in Hildén 2011). The globalization of competition in the higher education market has led to a situation where institutions compete against other institutions all around the world. This has forced institutions to recognize that they might need to market themselves differently in this climate (Hemsley-Brown & Oplatka 2006).

Amidst the intense competition, international students are the market segment that many universities have turned to. Foreign fee-paying students can be an important source of revenue for an institution and a country. For example in Australia, higher education was the country's third largest export earner in 2007 (Mpinganjira 2009). However, for institutions that do not collect tuition fees, the motivation to recruit international students must be something else. Interaction with international students provides diverse and enriching cultural and social perspectives to the learning experience of students and university staff, and makes it easier to form contact and partnerships internationally (Mpinganjira 2009). From the host country perspective, international education may make a positive contribution to the country's economic, social, cultural and intellectual engagement with other countries (Mpinganjira 2009).

The size and direction of international student flows relate to government policies, world economy, and economic and political conditions in particular countries (Altbach

1991, in Bourke 2000). Most students choose to go study in a host country that is more economically developed than their home country (McMahorn 1992, in Mpinganjira 2009). Thus, the majority of global students flow from third world countries to industrialised countries (Bourke 2000), perhaps in search of better quality education, employment opportunities and standard of living. The flow of foreign students is also influenced by historical ties between the host country and the student's home country (Bourke 2000), for example colonialist ties (Maringe & Carter 2007) or recent wars between the two countries can have an effect on the student flows. In 2009, the leading host nations to receive the most foreign students were Australia, Canada, France, Germany, the United Kingdom and the United States. The largest numbers of international students were from China, India and Korea, with Asian students representing 52% of foreign students enrolled worldwide. 83 % of all foreign students were enrolled in G20 countries in 2009, with 77 % of all foreign students enrolled in OECD countries. The most international countries in terms of education were Australia, Austria, New Zealand, Switzerland and the United Kingdom, where international students made up 10% or more of the enrolments in tertiary education. (OECD 2011.)

The growth in international education is expected to continue at a fast rate partially thanks to increasing world population and rising general income levels (Mpinganjira 2009). When in 1994 there were over one million foreign students attending third level institutions worldwide, in 2009, this number had reached 3.7 million (OECD 2011) – in only 15 years the number of foreign students has increased more than threefold. Since 2000, the average annual growth rate of foreign tertiary students enrolled worldwide has been 6.6%.

Foreign students are any students who are not the citizens of the country where they are enrolled but may be long-term residents there, whereas international students are their subset that moves to a foreign country for the purpose of studying there (OECD 2011). The focus of this thesis is on prospective international Master's degree students, that is, students who are looking for a university outside their home country with the purpose of completing a higher education postgraduate degree. Graduate students are a particularly interesting group of international students because the greatest growth in students going

abroad for a degree has been in Master level study (Lambert 1993, in Bourke 2000). Domestic students (who are residents of the country where their institution is located), exchange students or students following distance learning programmes without leaving their home country are not included in this study.

In this introduction chapter, I will first present the research gaps in this field. Then, I explain how I plan to contribute to filling some of these gaps by answering my research question. Finally, I address some limitations of the study and describe the structure of this report.

### *1.1 Research gaps in international student decision-making*

Decision-making of international students and how they choose a place to study has been researched by several authors (e.g. Bourke 2000, Cubillo et al. 2006, Van Rooij & Lemp 2010). This field of research is crucial for universities' student recruiters, who as marketers need to know which factors influence the purchase intention of prospective students (Cubillo et al. 2006). Mpinganjira (2009) states that there still is not enough information available that is based on empirical investigation of international student decision-making. In this chapter, I will point out research gaps in this field of study, focusing on the Nordic higher education market, and the application of marketing communications in the context of student decision-making.

#### **1.1.1 Nordic market in higher education**

Geographically, the work in the field of international student recruitment and decision-making is patchy: most of the research into this subject has been motivated by individual institutions' need to understand their target market preferences, and the research has been focused mainly on the UK, US and Australia (Hemsley-Brown & Oplatka 2006). In spite of the fact that prospective student decision-making has warranted some studies in Finland, the Nordic countries as a region have, as of yet, been ignored in this context.



A few authors have conducted studies related to prospective student decision-making in the context of Finland. In terms of Finnish students, the research topics have included student decision-making in the study field of psychology (Keskinen et al. 2008), information sources used in decision-making (Ikonen et al. 2006, Tuominen & Siitonen 2008), social media in student recruitment (Korpivaara 2011), and corporate image and reputation's effect on student's application intention (Tuominen 2011). In terms of international students who chose Finland, the research topics have included to attributes in evaluating and selecting an institution (Evolahti 2010, Hildén 2011), international students' integration into the Finnish society (Kinnunen 2003), the experiences of international students in universities of applied sciences (Niemelä 2009a) and in universities (Niemelä 2009b).

However, it must be noted that the above mentioned studies have taken a single-country view. A few reports concerning international students in Nordic countries do exist: For example, OECD (2011) produces an annual "Education at a glance" report that examines the state of national and international education in OECD member countries, including the Nordic countries. Another report by Woodfield (2009) studied the trends in international student mobility and institutional and national policy responses to them in Denmark and Sweden. The Observatory on Borderless Higher Education (2005, 4) assessed the internationalization activities in higher education that were ongoing in Sweden in 2005 and examined the emerging trends in the Nordic countries on this issue, concluding that "the Nordic governments increasingly view higher education as a tool for overall economic and industrial development, and have become much more active in setting the aims and strategies for internationalization". This report is already dated, though, as major changes in terms of financing of higher education have occurred in these countries since its publication. In conclusion, no articles were found that discuss prospective student decision-making from a Nordic perspective. There seems to be a research gap regarding this geographic area.

The financial aspect of higher education is what makes the Nordic market different from any other markets. Whereas tuition fees are common in Anglo-American countries, in the Nordic countries there has been a long tradition of free university education, which

has been an important reason for foreign students to choose this region to study abroad. The OECD (2011, 262) has made a distinction between the education funding system in the Nordic countries and that of other OECD member countries. They describe the Nordic countries as having “no or low tuition fees but generous student-support systems”, pointing out that only this region has such a mentality. None of the five Nordic countries’ public universities charge tuition fees from their national citizens (OECD 2011). Tuition fees for non-EU/EEA residents have only recently been introduced in some institutions. Denmark was the first Nordic country to introduce common tuition fees for non-EU/EEA students in 2006. Sweden followed in 2011, as did nine universities and ten polytechnics in Finland in 2009 when they started a tuition fee trial period for some Master’s programmes (Hildén 2011). None of these countries, however, charge any tuition fees from EU/EEA residents. Norway is the only Nordic country where public universities do not charge tuition fees from any nationality, except for some specific programmes. However, the private universities in Norway charge tuition fees from both national and international students.

The introduction of tuition fees for students from outside of the EU and European Economic Area has had a dramatic effect on the number of international students in Sweden. According to DN Debatt (2011), the number of students from outside of Europe dropped from 16,000 to merely 1,200 individuals in 2011 after tuition fees were introduced to them. When non-European Union students were charged tuition fees for the first time in 2001 in Sweden, the applications from these students plummeted 85 per cent (On Campus 2011). Similar development also occurred in Denmark, where the non-EEA student application levels also decreased significantly following the introduction of tuition fees (University World News 2012). While tuition fees have been introduced in other Nordic countries, Norway has gained popularity by remaining as the free option. For example, while applications to Sweden dropped drastically in 2011 following introduction of tuition fees, Norway’s University of Oslo experienced a 60 per cent rise in popularity (On Campus 2011). Therefore, the institutions in these countries are facing a grand marketing challenge in terms of how to market their offering to non-EU/EEA students in a way that cannot be based on the absence of tuition fees.

The Nordic countries' approach to funding education is not only about the money, but also reflects their values and attitudes. The OECD report (2011, 262) describes these in the following way:

*“The approach to funding tertiary education reflects these countries' deeply rooted social values, such as equality of opportunity and social equity. The notion that government should provide its citizens with tertiary education at no charge to the user is a salient feature of these countries' educational culture. In its current mode, the funding of both institutions and students in these countries is based on the principle that access to tertiary education is a right, rather than a privilege.”*

The Nordic countries' specific model of tuition fees and financing, which originates from their national values and attitudes, makes the Nordic countries a distinctly different market from the Anglo-American one. Now as the institutions in these countries are amidst a transition from free-for-all education to more marketized higher education market, they provide an especially interesting case to be studied.

### **1.1.2 Marketing communications in relation to student decision-making**

Although marketing concepts from the business world are gradually adopted by many universities, especially in English-speaking countries (Hemsley-Brown & Oplatka 2006), higher education institutions find *applying* business principles to their strategies and tactics challenging (Burrell and Grizzell 2008, in Van Rooij & Lemp 2010; emphasis added). Moogan (2011, 571) declares that the “literature on the application of marketing tools within the student decision-making process are relatively dated”. It must be noted that knowledge about student decision-making has practical benefits to institutions only if they apply this understanding in their marketing strategies and their implementation.

Only a handful of studies have focused on whether prospective students' decision-making variables are addressed in universities' marketing communications. A few authors have conducted studies to determine whether there is a match between printed information materials provided by universities and the choice factors of prospective

students: Gatfield et al. (1999) examined if factors that are important to international student decision-making were expressed in international student study guides of Australian universities. Mortimer (1997) conducted a participant observation study where UK institutions were contacted for information by mail and their responses were analysed in terms of their response time and how well they covered the topics that information was requested about. Hesketh and Knight (1999) also analysed the content of UK university prospectuses. All of these studies concluded that there was a substantial gap in what information the students need and what they get in universities' print communications.

Moogan (2011, 571) suggests that previous studies “do not reflect the increasing importance of marketing technology in matching the information needs of the students”. Hemsley-Brown and Oplatka (2006) point out that the above-mentioned three studies were done before the internet age or the rapid development of online access. By the end of 2011, worldwide internet penetration was 32.7 %, and had surged 528.1 % from 2000 to 2011. The level of penetration was 13.5 % in Africa, 26.2 % in Asia, 61.3 % in Europe, 35.6 % in Middle East, 78.6 % in North America, 39.5 % in Latin America and the Caribbean, and finally, 67.5 % in Australia and Oceania (Internet World Stats 2012). Limited information is available about the Internet usage per age group worldwide, although reports on regions or countries exist. For example, in India, 19-40 years age group constitutes nearly 85% among internet users (Goospoos 2011). If this is the case in other developing countries as well, universities can expect a better potential reach of prospective students than the world average of 32.7 %. However, internet access may still be limited and unreliable in many developing countries, so universities targeting students from these countries cannot expect them to be able and eager to browse an institution's website for hours on end.

Another aspect that has awarded little interest in the field of higher education marketing is the application of positioning strategy (Harrison-Walker 2009). Van Rooij & Lemp (2010) have approached this issue by doing a content analysis of 43 higher education websites directed at the American audience, investigating how the institutions used their websites to market themselves in the non-degree program niche, especially in terms of

positioning statements. Their result was that although the institutions expressed clearly and explicitly who they are and what they offer, most of these programme websites did not include differentiators signalling their uniqueness.

In conclusion, the research gaps I have identified are the Nordic market and its special characteristics in higher education, the application of marketing understanding to higher educations in terms of marketing communications addressing student decision-making especially in online environments, and positioning and differentiation in the context of higher education institutions.

## *1.2 Research question*

Information is the key that facilitates cross border movement in higher education. It can be seen as the most critical variable that influences a prospective student's purchase decision making process (Bourke 2000), both in terms of content and quality (Briggs & Wilson 2007, in Moogan 2011). Universities need to understand what information prospective students need to make their decision where to study, so that they can make sure those needs are met by disseminating that information effectively (Kotler & Fox 1995, Moogan 2011). In chapter 1.2.1, I provide argumentation for why institutions should care about student decision-making in terms of what consequences students' badly-informed decisions may have. In chapter 1.2.2, I will introduce my research question in terms of how universities can use their website to facilitate international student decision-making.

### **1.2.1 Consequences of badly-informed decisions**

There are four arguments that support the notion that institutions should care about whether their potential students make well-informed decisions: to avoid dissatisfaction during the pre-application phase, to promote student satisfaction by ensuring that they have realistic quality expectations, to avoid bad word-of-mouth due to disappointed students, and to avoid retention problems.

First, difficulties in locating information or other inconveniences during information search and application may cause dissatisfaction among prospective students. In Maringe and Carter's (2007) study on African students studying in UK higher education institutions, three broad issues caused dissatisfaction during the decision-making process: information inadequacies, financial constraints, and post-application marketing deficiencies. Students reported they were suffering from lack of access to information that would facilitate their decision-making, especially in the earlier stages of the decision-making process, namely during the information gathering phase. Disability to access the necessary information might lead to the student not applying to the university at all.

Second, in the long run it is not enough to communicate a positive image concerning factors that prospective students care about – institutions must also deliver on the attributes and quality that they promised in their marketing which attracted the students in the first place (Kotler & Fox 1995, Mpinganjira 2009). From students' perspective, one way to define service quality in higher education is “the difference between what a student expects to receive and his/her perceptions of actual delivery” (O'Neill and Palmer 2004, 42, in Voss et al. 2007). A student's perceived service quality is one of the antecedents to student satisfaction (Guolla 1999, in Voss et al. 2007).

Third, it would be wise for institutions to make sure that the student is satisfied with his or her experience in the university and the host country, as the student's experiences during this relationship affect how he or she talks about the institution to third parties (Bourke 2000). How existing students perceive the quality of the educational offering affects prospective students via word-of-mouth communications: satisfied students may attract new ones by recommending the experience (Voss et al. 2007), or disappointed ones may complain about their experience in private, or even publicly (e.g. on social media platforms), which may harm the institutions' reputation. Seriously dissatisfied students may contribute to a weakened institutional image among prospective students, which makes recruitment more difficult (Kotler & Fox 1995).

Fourth, the high drop-out rate of student in higher education has been found to be related to the student's lack of knowledge of what they were getting into in terms of what their study and learning experience will be like in their chosen programme (Yourke, 1999, McInnis & James, 1995; both in Baldwin & James 2000). Accurate and specific information already during student recruitment and admission phase is important for the prospective students to determine realistically whether the institution or a particular study programme is a good match for them. It is in the institution's interest that the student makes the right choice for himself or herself, because ill-informed decisions can have serious consequences. If students are not happy with their choice, they are likely to have low morale and poor performance, and might even drop out (Kotler & Fox 1995). Understanding and fulfilling the students' information needs, ensuring that they have sufficient information to facilitate their decision-making, can help to avoid unnecessary retention problems (Mpinganjira 2009). Since recruiting new students is several times more expensive than retaining the existing ones (Joseph et al. 2005, in Voss et al. 2007), it would make sense for universities not to risk higher drop-out rates because of misguided student choices.

### **1.2.2 Website content to facilitate international student decision-making**

The focus of this thesis is on student expectations in relation to university website content design. The objective is to discover how issues perceived to be important by prospective international degree students are reflected in universities' website content aimed at these students in terms of alignment between marketing communications and customer information needs. Previous studies (Gatfield et al. 1999, Mortimer 1997, Hesketh & Knight 1999) conducted in the 1990s identified a gap between the information students need and what they were provided in university prospectuses – my intention is to investigate whether such a gap still exists, however, the marketing channel in my focus is the university website instead of prospectuses. More than a decade has passed since the completion of the above mentioned studies, bringing on more academic knowledge about what matters to the international students. I intend to look for cues about whether this knowledge has been applied to marketing practices in

terms of university websites. My purpose is also to identify the variables that may have been neglected in university website content.

The main research question in this thesis is:

*How can universities use their website content to facilitate international Master's degree student decision-making?*

To support the main research question, a sub question was formed to explain the characteristics of the university website content:

*What kind of website content is relevant, informative and persuasive in terms of international student decision-making?*

These questions are formed out of four different elements: the *context* is decision-making, the target *segment* is prospective international Master's degree students, the *object* of the study is university website content, and the *qualities* that are looked for are relevance, informativeness, and persuasiveness of said content. All this is discussed from higher education marketing and communications perspective. Thus, what I argue in this thesis is that universities need to produce website content that is relevant, informative, and persuasive to the potential applicants. Next, I will elaborate on the meaning of these terms in relation to my research question.

By relevance, I mean that the information concerns issues that the international students find interesting and important: the university should provide information about the right issues (Maringe & Carter 2007). James et al. (1999, in Baldwin & James 2000) surveyed international students about how much relevant knowledge they have to support their decision-making process. The study revealed a significant gap between what factors the respondents deemed most important and how much they knew about them by their own estimation. They also reported that some factors, about which they had only little or moderate knowledge, had influenced or strongly influenced their decision – conversely, they had a great amount of information about issues that were less important in terms of their decision-making. According to Baldwin and James (2000), students should be assisted in finding the exact information they need, rather



than overwhelming them with the vast amount of it. Therefore, rather than needlessly burdening them more, universities should focus their communications on what the prospective students and other relevant stakeholders want to know rather than on whatever the institutions wants to provide (Briggs and Wilson 2007, 69, in Moogan 2011). Limited marketing resources can be used more effectively when efforts can be focused on relevant issues. In the literature review of this thesis, I will compile a framework of the topics of information identified in the literature that prospective international students find important for their decision-making.

By informative, I mean that there is a sufficient amount of information that is detailed enough to let the student evaluate it. Baldwin and James (2000) have criticized marketing strategies for being strong on rhetoric but weak on tangible, detailed information. What prospective students would need would be facts that enable them to know what to expect from a study experience in their chosen programme. However, in reality this need might not have been answered to just yet: in a study by Gomes and Murphy (2003), merely 5 % of students who had visited a university's website where they chose to study felt that they had found sufficient information.

By persuasive, I mean that the information is focused on each institution's strengths and unique characteristics that differentiate it from its competitors. Maringe and Carter (2007) encourage universities to provide concrete evidence about their strengths. According to Baldwin and James (2000) institutions should not only inform potential applicants about the nature of the educational experiences that the institution offer, but also present those experiences in reference to those of other institutions. They encourage universities to ask how their offering is different to (if not necessarily better than) those offered by other universities. In the increasingly competitive higher education market, having a distinct image can be a means to develop a competitive advantage (Parameswaran & Glowacka 1995, in Padlee et al. 2010). In this study, I will address this issue and examine whether the case universities try to persuade the prospective student about their uniqueness by emphasizing their strengths.

There are many different types of institutions offering higher education, such as universities, universities of applied sciences, colleges, and so on. The focus of this thesis is on research-based tertiary education institutions, more specifically universities that both conduct research and offer degree programmes in Bachelor, Master and PhD or doctoral level.

As a narrower case study, in the empirical part of this thesis, I will study the websites of eight universities in the Nordic countries. The universities selected for the study offer a variety of Master's programmes in the field of technology and engineering in English, targeting international students. I find it meaningful to study the website marketing communications in such a specific group of organizations because of their competitive element: they are direct competitors in the same field in similar countries, vying for talented and motivated international students with similar interests. The selection of case universities is further discussed in chapter 3.

Choosing a place to study abroad is a decision process that I, the author of this thesis, am personally familiar with and interested in. When I was searching a university where I would like to do a semester-long student exchange program as a part of my Bachelor's degree, I had two main sources of information: 1) reports or testimonials by students from my home university who had completed their exchange in a university that I was considering, and 2) the universities' websites. Initially, I started with selecting Asia to be the continent where I wanted to study, because I wanted to experience something completely different from Europe. After that, I did a lot of research to determine first in which country I wanted to study, and then to select an appropriate institution. The final choice between two Hong Kong universities was very narrow: the two options appearing very similar to me, I finally chose the one that guaranteed accommodation for exchange students – the final thing that tipped the scales was something small but practical. Based on the information I had access to back then, it was not easy to figure out how the various institutions in East and South East Asia differed from each other. My decision was indeed based on quite limited information.

This thesis is a part of my Master's degree programme in International Business at Aalto University School of Business. Currently, I am also employed by Aalto University, working in communications and marketing. Recruitment of both international and domestic students is a part of my responsibilities. I have not participated in the production of any content by Aalto University that will be analysed in this thesis, but I do expect to benefit from the results and managerial implications of this thesis in my day-to-day work.

### *1.3 Limitations*

There are some limitations regarding the interplay between the literature review of this thesis and the interpretation of the empirical results.

The case universities of this study are located in a specific geographic region, namely the continental Nordic countries. The results received in this sample may not be similar in other geographic region. The sample of universities used in the empirical part of this thesis is also not representative of the whole population of universities in these countries offering technology education. Therefore, it is not feasible to generalize results to full population, nor is that the aim of this study. Also, as these case universities represent the field of technology, the results might not be similar e.g. in the field of medicine in these same institutions or countries.

This study is descriptive in nature, examining how these case universities have applied the knowledge available in the literature about students' information needs to their actual website marketing communications. I am not trying to detect the reasons why these institutions have decided to include or not include any specific piece of information on their website. I am also not trying to imply any direct causal relationship between the university website and the amount or quality of foreign applicants.

In the literature review, I will synthesize the results of previous studies related to the information needs of international students. These studies have involved a range of

informants, including high school students looking for higher education, undergraduate students, graduate students, and institution staff. There might not be necessary distinction available on how the preferences of e.g. undergraduate and graduate applicants differ from each other. Therefore, the theoretical part of this thesis will have a broader perspective, whereas the empirical part will focus on Master's degree students only.

#### *1.4 Structure of the study*

The study is structured in the following way: In the literature review (chapter 2), previous studies on marketing and decision-making in the context of higher education and international student recruitment are presented. The findings of previous authors on relevant international student decision-making variables are combined and synthesized in the framework presented in chapter 2.3. In chapter 3, the methodology used in the empirical part of this thesis is explained in terms of how the framework was tested on a sample of eight universities in the Nordic countries. In chapter 4, the results of this empirical study are presented and discussed. Finally, in conclusion (chapter 5) the most important findings of this study are summarized and some comments on this study's limitations, managerial and theoretical implications, and suggestions for further research are offered.

## **2 LITERATURE REVIEW**

In this chapter, literature is reviewed from two broad fields of study: marketing and decision-making. Both topics are displayed in the context of higher education institutions with international student recruitment in mind. The previous literature from these fields is then combined and synthesized into an international student decision-making framework in the final chapter 2.3. The purpose of the literature review is to find an understanding of what international marketing and decision-making in the higher education are like and how their characteristics affect the international student decision-making process.

### *2.1 Marketing Higher Education Institutions*

According to Bourke (2000), an institution's marketing capabilities are one of its key resources for appealing to foreign students. In addition to marketing efforts, the institution sends signals about its current issues and future plans to the public through alumni, faculty members, and its research projects. Thus, marketing the educational offering to prospective students does not stop to recruitment activities, but includes all actions of the institution that relate to that student (Bourke 2000). How the student is treated all throughout the relationship matters. It starts from the first point of contact, e.g. initial student enquiries by email or at an educational fair, where first impression can matter a great deal to what feeling the prospective student gets from the institution (e.g. was the staff friendly and helpful), which affect his or her choice to apply. The relationship continues all throughout his or her students all the way to how the institution maintains contact with its alumni. The focus of this study is on the pre-study phase of student recruitment.

This chapter briefly introduces marketing literature in relation to higher education and student recruitment. Three main topics will be in focus: first, I will briefly introduce the concept of segmentation in the context of student recruitment. Second, I will go into

positioning of higher education. Third, I will give an overview on marketing channels that higher education institutions use in student recruitment and describe websites as marketing channels.

### **2.1.1 Segmentation**

Business dictionary (2012a) defines segmentation as “[t]he process of defining and subdividing a large homogenous market into clearly identifiable segments having similar needs, wants, or demand characteristics”, suggesting that the objective of segmentation is to “design a marketing mix that precisely matches the expectations of customers in the targeted segment”. This thesis looks at international degree students as the customer segment that universities’ marketing mix needs to be attuned to.

In general, customers can be divided into segments for example based on their purchase behaviour, the benefits they seek, demographics, geography, or psychography (Business Dictionary 2012b). Little research has addressed targeting or segmentation of the higher education market (Moogan 2011). This thesis aims to contribute to filling in this gap by having a special focus on the international Master’s degree student segment.

Segmentation can be based on domestic versus international students in general, or even more specifically, on the prospective students’ country of origin. An institution could target students from some specific countries or regions.

Harrison-Walker (2009) suggests that students could be segmented based on what product associations or aspects of the higher education service they consider to be the most important. Segmentation allows addressing the potential students’ concerns in the marketing message and tailoring the communication strategies to suit them (Moogan 2011). For example international master’s degree students, who are the target segment in this thesis, may have different information needs to domestic students, e.g. in terms of describing the host country culture and immigration practicalities. By preparing a separate communications packages to different customer segments, marketing communications can be focused on relevant issues only.

## **2.1.2 Positioning**

The position of a brand is the perception that consumers have of it in their minds, in relation to the perceptions they have about its competitors. According to Aaker (1991), a good position requires perceived uniqueness (that is, being different from competitors), prevalence (a relevant share of customers are aware of it), and strength (customers find it valuable). (Harrison-Walker 2009.) Positioning, in turn, means the process of establishing and maintaining such a position (Kotler & Fox 1995).

The purpose of positioning is to give the student an idea about what the institution stands for, and predispose him or her to have a favourable opinion of the institution. It involves forming and presenting a simple message about the institution's characteristics. (Ries & Trout 1981, Kerin et al. 1992, Kotler 2000, Lowry & Owens 2001; all in Van Rooij & Lemp 2010.)

An element that is crucial to positioning is a frame of reference: what the brand or organization is compared to. Usually the reference point is the brand or organization's competitors. (Aaker & Shansby 1982, in Harrison-Walker 2009.) Differentiation, or the process of determining differences that distinguish the institution's offer from that of competitors (Kotler & Fox 1995), is very closely related to positioning from this perspective.

Higher education institutions are starting to recognize that positioning is important in terms of attracting degree students (Van Rooij & Lemp 2010). It is necessary for institutions to differentiate from others in order to get into the choice set of institutions and programmes that the prospective students consider (DesJardins 2002, and Shaik 2005; in Van Rooij & Lemp 2010).

To make their decision about where to study, prospective students need to be able to tell the difference between the various institutions they are considering. Universities not only need to differentiate their approach, but also communicate these differences to their target audiences (Baldwin & James 2000).

Higher education institution can use their distinct image or position relative to competitors to create a competitive advantage. The perception that prospective students get of the institutions affects their willingness to apply to that institution to study. (Ivy 2001.) Harrison-Walker (2009) states that an institution must be perceived *more* favourably by prospective students than its competitors are perceived in order to be successful long-term (emphasis added).

To know what makes an institution different from its competitors, the institution needs to know who they are and what they stand for (Van Rooij & Lemp 2010). It may not be relevant to compare the institution to every single institution in the country or the world, but rather look at its position in relation to its direct, most relevant competitors (Kotler & Fox 1995). Harrison-Walker (2009) suggests that one way to identify relevant competitors is to ask students who applied to a university what other institutions they considered in addition to that one. The institution can then look into how its competitors have positioned themselves, and figure out a way to stand out from them.

Positioning of higher education institutions is usually focused on the institute as an entity and on the fields of science that the institution has a reputation for (Van Rooij & Lemp 2010). Also individual programmes that the institution offers may be positioned separately.

Positioning requires in-depth knowledge of one's strengths, weaknesses, opportunities and threats in order to determine how the institution is different from its competitors (Brooksbank 1994, Perreault & McCarthy 1999, both in Van Rooij & Lemp 2010). In Baldwin and James' (2000, 147) words: "What is needed is for all universities to conduct an honest analysis of their strengths and the populations they wish to serve, and use this to define a genuinely distinctive mission, rather than the bland pieties now found in most mission statements which are indistinguishable from each other." When the institution knows where it is stronger than the competitors, it can bring this message across in its marketing communications. If the institution's strength is in an area that a prospective student holds in value, communicating that strength can influence the prospective student's decision a great deal.



According to Lowry & Owens (2001, in Harrison-Walker 2009), positioning is effective when it focuses on what the target market, in this case prospective international degree students, perceives as important and meaningful – rather than concentrating on whatever the university administrators believe to be significant. Also Teas and Grapentine (2004, in Van Rooij & Lemp 2010) advocate aligning all positioning elements with the needs and desires of the target audience.

Kotler and Fox (1995) encourage institutions to determine the key attributes and their relative importance that students use in evaluating and comparing institutions. The standing of the institution regarding these attributes can then be compared to that of the competitors. The empirical part of this thesis includes a similar exercise among a handful of Nordic universities.

### **2.1.3 Marketing channels**

Universities have a broad variety of available channels that they can use for prospective student marketing. Woodhall (1987, in Bourke 2000) listed these channels or points of contact with the prospective students that are used in marketing of higher education overseas. Her list includes word of mouth, visits by academic personnel, and participating in educational trade fairs. However, her list from the 1980s may be outdated for the reality in 2010s as it does not include online channels, such as university website or social media. She also left out printed promotion materials, such as brochures. From the prospective student's perspective, there are also other sources of information, such as friends and relatives, education agents, foreign recruitment offices owned by governmental organizations or individual institutions (Mazzarol 1998).

In this chapter, I will first go through very briefly the mix of channels that universities may use in their marketing communications. I have separated the channels under traditional channels and online channels. Then, I will elaborate on why it is relevant to give special attention to university websites.

### ***2.1.3.1 Traditional channels***

In this section, I will go through several types of “traditional” marketing channels, e.g. printed marketing materials or any channels involving personal contact.

#### *Word of mouth*

Business dictionary (2012c) defines word of mouth or WOM as “[o]ral or written recommendation by a satisfied customer to the prospective customers of a good or service”, pointing out that WOM is “considered to be the most effective form of promotion”.

In highly intangible services such as higher education, word of mouth is especially influential (Bruce and Edgington 2008, in Moogan 2011). The way the university is spoken of in public is an important signal about its reputation. Current studies can be important sources of information, as their satisfaction or dissatisfaction with the institution’s offering can be a cue about the quality of that offering. Also alumni and their associations can be very efficient in promoting the institution (Bourke 2000), as they have personal experience with the institution’s educational offering.

#### *Visits by academic personnel*

Sometimes professors, researchers and teachers visit other countries for conferences or as visiting lecturers. This is one way in which an international prospective student could get a taste of what the academic staff is like in other institutions.

#### *Educational trade fairs*

Educational trade fairs are an effective marketing method. There is a high correlation between attending an educational fair, and a student’s likely study destination (Bourke 2000). In terms of the university website, they can encourage prospective students to

visit such fairs, for example by displaying a list of dates and fairs which the university staff is planning to attend.

#### *Foreign educational agency offices*

Education agents are individuals or organizations who provide commercial services to help students gain places on study programmes abroad. They operate as intermediaries between institutions and students. In many countries students and parents are not familiar with foreign education systems, so they use agents for guidance and help with arrangements concerning a study abroad. From institutions' perspective, educational agents may be a cost-effective means to reach prospective students abroad. (Krasocki 2002.) According to Bourke (2000), there is a high correlation between visiting a foreign education agency office and a student's likely study destination.

#### *Campus visits*

Campus visits are a powerful way for a prospective student to get a feeling what it would be like to study in a given university. However, they may be inconvenient for international students if the student's home country is far away from the country where the institution's campus is located. Moogan (2011) suggest that as an alternative to a campus visit, institutions could offer a virtual campus tour on their website in order to disseminate information about the campus to students who are not able to come for a visit.

#### *Phone calls*

Phone calls can also be a means of communication between the prospective student and the international office at the university. Overseas calls are costly, however, and calls across time zones might be inconvenient. However, new technologies allowing free or low-cost international calls over the Internet, such as Skype, may make this option more viable.

### *Printed materials*

Brochures, posters, and prospectuses are printed materials that prospective students can consult for information. A few authors (Gatfield et al. 1999, Mortimer 1997, Hesketh & Knight 1999) have studied prospectuses as a source of information for prospective student decision-making, all of them finding a gap between what information students need and what information is provided in the prospectuses. Printed materials also include advertisement posters, flyers, and brochures.

#### ***2.1.3.2 Online channels***

Internet makes distances less important. A prospective student who lives 10 000 kilometres and 8 time zones away can get access to information in a timely manner, without having to make costly overseas phone calls, travel to meet university staff or visit the university campus, or waiting for mail service to deliver brochures. Internet might even be the only source of information for students residing in distant, small countries that the university does not consider strategically important to enough to arrange events in or mail printed promotion materials to.

Internet can be deemed a unique environment for promoting goods and services (Argyriou et al. 2006), because it is hypothesised to make consumer information search more cost-efficient (Alba & Lynch 1997; Barwise et al. 2002; Thorbjornsen et al. 2002; in Argyriou et al. 2006).

### *University websites*

Universities' websites on the Internet are an important facilitator in selling their educational offerings in other countries (Bourke 2000). Setting up a website is relatively inexpensive so that almost any institution can afford to use it. With their websites, universities can reach a large and geographically dispersed audience with relative ease (Lowry & Owens 2001, in Van Rooij & Lemp 2010), allowing both global reach and

even one-to-one targeting at the same time (Dreze & Hussherr 2003, in Argyriou et al. 2006). Universities also have full control of the content presented on their website.

Gomes and Murphy (2003, 121) advocate setting up customized promotion materials for international students, saying that “education institutions should design a portion of their Web sites to target overseas students”. If there indeed is a section for this specific target group, it is easier to tailor the messages directly to their needs. However, the international prospective students might also look at other sections of the website, so the information over the whole website should be consistent to avoid confusion.

### *Third parties' websites*

National promotion agencies' websites, or websites of any other stakeholders wishing to promote the student recruitment of an institution, can also be sources of information to the prospective student. Institutions may cooperate with such agencies, but the agencies might serve the marketing needs of several institutions in the country simultaneously. Unless the agency is affiliated with only one institution, the institution might not have power to control the content of the agency website. In a study by Gomes & Murphy (2003), less than one in seven students who responded to their survey had found the website of the institution where they decided to study by first visiting an education portal or other online promotional material.

Because of the intense competition in the higher education market, many countries have recognized the need to support and complement the efforts of individual universities with national initiatives to attract international students (Mpinganjira 2009). Many host nations take up activities to promote their universities and educational offerings. The promotion efforts in target markets influence the country preferences among prospective students. National agencies organize educational fairs, produce national guides about higher education offerings and offer advice and information to prospective international students. (Bourke 2000.)

Also the websites of ranking organizations and different institutions' positions in these rankings can influence a prospective student's perception of that university in relation to its competitors.

#### *Responding to email enquiries*

Gomes and Murphy (2003) recommend that universities should give a high priority to responding to e-mail queries from prospective students. In Gomes and Murphy's (2003) study, about one third of students that had visited the institution's website followed up with e-mail for more information. Out of those students, over 80 % implied that the response they received to their email influenced their choice of institution. The authors point out that there is a risk that the prospective students may become dissatisfied and lose trust if their enquiries are not replied promptly and personally. As in online environments trust is a crucial issue, this might have a huge influence.

#### *Other digital channels*

Latest digital technologies, such as social networking platform or mobile phone applications (either stand-alone applications, or mobile web browsers used to navigate the institution website), are new channels that can be used for communications and marketing of higher education. They enable strategies where relationships with customers (the prospective students) can be tailored individually and information relevant to each individual can be passed on. (Moogan 2011.) If the university uses such channels in marketing (many universities nowadays have a Facebook page, for example), they could be linked to the university website and vice versa in order to give the prospective student an opportunity to join such services and interact with the university through them. However, a characteristic of social media is that it cannot be controlled completely, so there are always risks involved in terms of whether a university is viewed in a positive, neutral, or negative light.

For example in the United States, the growth of adoption of social media by higher education institutions has been fast. According a study by Barnes and Lescault (2011)

that surveyed higher education institution in the US, 100 % of the survey respondents used social media to communicate with students – up from 61 % in their 2007-2008 survey. Out of the responding colleges, 98 % had a Facebook page and 84 % had a Twitter account.

#### **2.1.4 Website as a source of information**

University website is one of the marketing channels in any university's channel mix. The image of the university in the eyes of the prospective student is also affected by any other media where they encounter the university, or by the influence of any personal contact related to the university that the student might have. The focus of this thesis is on the website as a venue where marketing communications take place – the characteristics of websites and their technical issues will only be addressed briefly.

Corporate websites, including also university websites, perform the same basic functions as advertising: they try to both inform and persuade (Singh & Dalal 1999, in Argyriou et al. 2006). Website's goals can be creating awareness, communicating benefits, promoting trial, and/or urging customers to take action (Strauss & Frost 2001, Perry & Bodkin 2002; in Argyriou et al. 2006). Universities' website content focused on international student marketing does all that.

Websites are also used to build an image in the eyes of its users by providing information to both internal and external constituents (Hill & White 2000, in Van Rooij & Lemp 2010). Disseminating information, however, is not the only use for a website, but it can be used in two-way communication by collect data (Truell et al. 2005, in Van Rooij & Lemp 2010) such as feedback, enquiries and applications from prospective students. Website is not only important for its informative value, however: it also affects the prospective student's perception about whether the university is well-organized and professional (Van Aart 2011).

Hayes (2007) claims that in universities marketing activities the emphasis has moved to the website rather than printed materials. In Moogan's (2011) study of British students

the prospectus remained the most important source of information, however, it was followed by the university website (and a British admission service UCAS) at second place with the faculty's or school's website at the third place. However, this result might not be applicable to international students because of the costs of mailing a prospectus overseas and because of them possibly being less familiar with national education-related services such as UCAS.

Since many marketing channels, such as phone calls and campus visits, are less convenient to international student because of the cost and distance, they may be expected to rely more on online information sources than domestic students do. International students are also less likely to know people who are attending or have attended a particular foreign institution that people who live and have a social network in that country. A prospective student might never meet a person affiliated with a certain institution, before the actually attend that institution. In contrast, university websites can be reached anytime, anywhere in the world, provided that the prospective student has access to an Internet connection. Therefore, as the source of information they can access is more limited, the information available on the university website (along with other digital channels) may be a highly significant information source to international students in particular. To some, it could be even the only source of information.

Prospective students and their parents often have little knowledge about studying abroad, let alone about particular institutions and courses. Many of them use the Internet to look for information and advice on international learning opportunities to facilitate their decision-making. (Gomes & Murphy 2003).

In Gomes & Murphy's (2003) study, two thirds of students had used Internet to find information about different universities in order to decide where to study. About 65 per cent of them had visited the website of the institution that they eventually chose before applying there. Half of them had used search engines to find the institution they had chosen. However, it must also be considered that since completing the study in the



beginning of 2000s, the level of Internet penetration worldwide has risen, so these figures might be even higher in 2010s.

Gomes and Murphy (2003) underline that it is essential that prospective students can find the information they seek on the institution's website or have access to an e-mail address for further enquiries. To accommodate the structure and content of their website to the needs of the prospective students, universities need to determine what information is relevant to this target group. To influence their decision, universities can then provide information and argumentation about the right topics, and leave out any information with little or no relevance.

## *2.2 Decision-making in higher education*

Decision-making is goal-directed behaviour that happens in the presence of options. The purpose of decision-making is to reach a choice between a range of available options. (Hansson 2005.) In the context of higher education, Maringe and Carter (2007) define decision-making as a complex process that involves multiple stages, is undertaken in various levels of consciousness by a student who intends to enter higher education, and where the problem to be resolved is in which destination and programme to study. They argue that the associated concept of student choice is not only an outcome of decision-making but also a process, and that choice and decision are so interwoven as concepts that they cannot be separated from one another. Therefore, in this thesis I refer to this same process whenever I use either term.

Choosing higher education is one of the most expensive and significant decisions that a student is likely to ever make (Mazzarol 1998). Expenses are not only generated by the possible tuition fee, which can amount to the equivalent of tens of thousands of euros per year in the most expensive institutions. Also living and immigration costs affect the total cost of the experience. Getting an education is also costly because of opportunity cost: instead of spending years in a university, the person could have worked full-time for a salary. Finally, the decisions students make about what to study affect their earnings after

graduation as well, because of the different salary levels and employment opportunities that follow graduation from a particular field of study.

Kotler and Fox (1995) suggest that the extensiveness of the decision-making process can be evaluated based on the degree of personal involvement from the student in the decision, his or her prior experience of making decisions about that topic, the range of choices that are available and feasible and the decision maker's awareness of these choices (and the information available about them), and the time available for making the decision. Cubillo et al. (2006) point out that choosing higher education is especially complex as a decision in the case of international students.

Purchasing international education demands a high level of involvement from the customer (Nicholls et al. 1995, in Cubillo et al. 2006). Kotler and Fox (1995) list four ways in which choosing higher education is a characteristic high-involvement decision: First, the decision reflects upon the prospective student's self-image with possibly long-term consequences. Second, the cost to implement the decision (to study in the selected institution) involves major sacrifices personally and economically, such as the investment of time and money. Third, there are high personal and social risks involved in relation to making a "wrong" decision, i.e. one that the student would regret in hindsight. Fourth, there is pressure from the student's reference group, directing the student to make a particular choice, and the student has motivation to meet these groups' expectations.

Lack of prior experience in making decisions about higher education institutions makes the decision-making more complex for the prospective student (Kotler & Fox 1995). As students rarely purchase education repetitively, they are likely to have only limited experience of the subject.

The range of choices available depends on how specific an idea that student has about what he or she is looking for. How prospective students become aware of different institutions is not within the scope of this thesis. Instead, the starting point is the time when a prospective student has landed on a university's website, when the decision-

making process is already underway. Thus, the focus of this thesis is on the university website as a source of information to facilitate decision-making.

In this chapter, I will first discuss the context of higher education decision in terms of how higher education's characteristics as a service affect decision-making, and what influence online environments have on decisions. The second topic is the decision-makers influencing the prospective student's choice. Third, I will look at the decision-making process. Fourth, I will present a review on the decision-making criteria that prospective students use in making their purchase decision. This review will be summarized in chapter 2.3 where I present the framework of this thesis.

### **2.2.1 Context of decision-making**

In this section, I will explain how characteristics of higher education as a service affects student decision-making, and how online environments have special challenges as decision-making environments and sources of information.

#### ***2.2.1.1 Characteristics of higher education services***

The purpose of this chapter is to elaborate on how higher education's nature and characteristics as a service affect the foundations of international student decision-making.

In comparison to other service industries, higher education is characterized by “a greater amount of interpersonal contact, complexity, divergence, and customization” (Patterson et al. 1998, in Cubillo et al. 2006). Each of these unique characteristics of higher education services presents certain challenges to marketers (Zeithaml 1985, in Hildén 2011) and thus, affects the way the higher education service marketing strategy is formulated (Kotler & Fox 1995).

As a pure service, most of the quality attributes of higher education cannot be perceived, felt or tested before consumption. The personal perception of quality can only be learned by experience, after consumption of the service. This complicated the purchase decision as prior to purchase, services can often be evaluated only vaguely and partially. (Bourke 2000.) For example, even if the description of a particular course's content and methods may be available on the university's website, one can only truly evaluate the teaching and learning once participating on the course. The quality of higher education services is also difficult to evaluate because of their heterogeneity and inconsistency. The quality may vary significantly according to different circumstances and from department to department (Patterson et al 1998, in Cubillo et al. 2006). Higher education cannot be warranted as there is no universally accepted measure of successful or failed education (Van Rooij & Lemp 2010). Economic rationality would assume that consumer choice would boost efficiency and stimulate competition by rewarding good quality and punishing poor quality (Baldwin & James 2000). However, education is often purchased only once, rather than repetitively, so poor quality cannot always be punished by not returning to the same vendor (institution).

The consumption of higher education is a lengthy exchange process where the customer remains involved throughout the service production, which can take years (Moogan 2011). Higher education is a transient experience where the ownership is only transferred in the end of the relationship when the student graduates and receives their certificate (Moogan 2011). Dann (2008, in Moogan 2011) points out that the primary outcomes of higher education are mental development, gained skills and the outcomes after graduation, rather than merely the degree certificate as a tangible evidence. What the university can offer before graduation is the promise of future benefit which is, however, uncertain until it is realized during the experience. (Moogan 2011.) This makes purchase evaluation of higher education difficult.

When one has no beforehand experience of a particular service provider, there is the problem of information asymmetry, which can be defined as a “[c]ondition in which at least some relevant information is known to some but not all parties involved” (Investor Words 2012). Information asymmetry in the case of choosing a university may be seen

as a sign of market failure (Gomes & Murphy 2003) as it causes markets to work inefficiently, since “all the market participants do not have access to the information they need for their decision making processes” (Investor Words 2012). One consequence of information asymmetry is that it leads consumers to frequently use reputation to signal quality and to screen service suppliers (Sapir & Winter 1994, in Bourke 2000; Moogan 2011).

Intangibility of services is often associated with a high level of risk (Moogan 2011). Maringe and Carter (2007) have listed five categories of risks that African students have perceived while entering UK higher education. The most important category was the financial risk involved, in terms of the direct costs (such as tuition fee) and the fear of not managing to meet the programme requirements in order to complete the degree. The second most important category was legal or administrative risks, by which the students mean the UK visa restrictions and frequent changes in alien regulations, a factor that depends very much on the legislative environment of the host country. The remaining three categories were not placed in any order of importance, but they were opportunity costs (the cost of not doing something else, e.g. working full-time and getting paid for it instead of studying, missed career opportunities in the home country), socio-cultural or family-related risks (such as family disruption, worries about anti-social behavioural influences, difficulty to integrate in the host country society), and academic risks, such as devaluing the study experience because of having to work part-time to make ends meet.

According to Maringe (2006, 467, in Hildén 2011), the introduction of tuition fees in higher education institutions may increasingly encourage consumerist behaviour among prospective students as they will start to consider more carefully the value they get for their money as a part of their decision-making.

Intangibility also makes it difficult to communicate about the service to the customer (Rathmell 1966, in Cubillo et al. 2006; Maringe & Carter 2007). Students have felt that they are not supported by institutions in their decision-making in terms of being provided adequate information, thus making it difficult to analyse information

objectively (Moogan et al. 1999, in Maringe & Carter 2007). Yost and Tucker (1995, in Van Rooij & Lemp 2010), however, note that higher education service can be made more tangible by clearly articulating the institution's strengths and the factors that differentiate it from its competitors. In this sense, it is the marketer's job to describe the institution in concrete terms.

According to Moogan (2011), higher education is about as intangible as a service can be. Lovelock and Gummesson (2004, in Van Rooij & Lemp 2010), however, argue that actually higher education is not purely intangible at all. First, despite being nonphysical in nature, higher education can often be standardized. This could happen e.g. by re-using the same set of lecture materials and the same staff. Second, production and consumption of education services are only inseparable when delivered in a face-to-face setting – therefore, education services are not really perishable because the content of a lecture, for example, can be stored in electronic (e.g. a video recording) or print form, and due to interactivity (e.g. with the help of email exchange or discussion forum) the students could still discuss their questions with their lecturer. Such recordings could also be used as physical evidence in marketing about what the education in that institution is really like, e.g. by presenting a video recording of a lecture on the university website.

### ***2.2.1.2 Decision-making in online environments***

Selecting a place to study overseas can be seen as an online purchase decision when the decision is made based on information acquired online rather than e.g. visiting the campus physically or meeting university staff face to face. Warrington et al. (1999, 118, in Gomes & Murphy 2003) point out that when it comes to “high involvement online purchases, such as overseas education, winning and keeping customer trust is essential”. A trusting relationship with the prospective student is needed to overcome, first of all, the sense of insecurity attached to an online environment, and in addition, the geographical and cultural distance between the student's home country and the institution's country (Hoffman et al. 1999, in Gomes & Murphy 2003).

Credibility of the university can be enhanced by presenting reliable information from a reputable and independent source (Gomes & Murphy 2003). A relevant third party could be, for instance, a university ranking institution. Outsiders can be more credible sources of information if they provide less biased evaluations than the university's own marketing statements do. Brand names, such as the name of a well-known university or the logo of a reputable accreditor, can provide important cues to the prospective student about a website's credibility (Hanson 2000, in Gomes & Murphy 2003).

Online trust and the level of difficulty in achieving it can be a cultural issue. For instance, Gomes and Murphy (2003) found that when it came to enrolling online and giving credit card details, European and South American students were willing to comply, whereas Asian students were more sceptical. Prospective students from culture A might need more evidence of the trust-worthiness of a university as an information-provider, than students from culture B might need. Universities can attend to these concerns by providing argumentation and proof for any statements they make on their website.

### **2.2.2 Decision-makers**

Students today are active decision-makers (Briggs 2006, in Moogan 2011) who make sophisticated choices (Clarke & Brown 1998, 85, in Moogan 2011). When choosing a place to study, students are said to consider their options in a very critical and analytical manner (Binsardi & Ekwulugo 2003). However, this positive view of student as decision-makers is not shared by all authors. Baldwin and James (2000) state that higher education applicants have only limited knowledge and understanding of the higher education system in general, and that students often behave in an irrational manner and are ill-informed, letting their decisions be guided by impressions and image.

In addition to the prospective student's personal opinions and preferences, many different parties have a direct or indirect influence to a student's decision about where to study (Bourke 2000). Kotler and Fox (1995) report that friends, high school personnel, peers, professional staff, and the current (undergraduate) students in the university in

consideration, have direct influence on prospective student decision making. In addition, indirect influence is forced by institution alumni, the student's parents, and various staff members in the institution considered (e.g. faculty members, the dean, and support service personnel). The extent to which opinions of other people affect the purchase decision depends on the intensity of those opinions, and the student's motivation to comply with their wishes (Kotler 2003, in Hildén 2011).

Different people may influence the prospective student in different phases of the decision process. Kotler and Fox (1995) listed different roles that influencers might have in the decision-making process: initiator of the whole process for searching a place to study, influencer in decision, decider (who has the final say), purchaser (the one who pays the study fee and possibly living expenses), and the user, or the student who will enrol at the chosen university.

The matter of whose opinion the prospective student takes seriously into consideration is both cultural and very personal. Each decision-maker is uniquely influence by several different factors related to their culture, social network, personal situation, and psychological tendencies. For example, in Bourke's (2000) study where three fourths of respondents were Asian, one third of students responding to the survey stated that their parents were the key decision makers in choosing their place of study while only about half of the students were the key decision maker themselves. Thus, the parents might not only help with seeking information and providing finance, but also have a great influence or even the final say on the purchase decision.

Although it might not be possible for the institution to reach all parties involved in each prospective student's decision process, the university might consider targeting other influencers, besides the student himself or herself, with marketing communications. For example, there might be a page on the website addressed at parents of the student, or at another sponsor of the student's tuition fee.



### **2.2.3 Decision-making process**

The higher education choice has been explained in many different contexts. Structural models of higher education choice (e.g. Gambetta 1996, Roberts 1984, Ryrie 1981; all in Maringe & Carter 2007) explain it in the context of external influence imposed upon the students, related to institutional, economic and cultural constraints. These studies, however, do not consider the element of rational consideration on behalf of the prospective student. In contrast, Becker (1975, in Maringe & Carter 2007) has argued that students make rational choices based on more or less precise calculations on the rates of returns they could expect from obtaining an education from each institution they are considering. Then again, Maringe and Carter (2007) point out that the benefits of education are often intangible and not easily quantifiable, as are the associated opportunity costs, so in their opinion students can only make approximate, subjective comparisons, rather than precise calculations. Hodkinson et al. (1996, in Maringe & Carter 2007) and Hemsley-Brown (2001, in Maringe & Carter 2007) emphasize the importance of the prospective student's personality and subjective judgment in decision-making, suggesting that influence by any external forces are filtered through the prospective student's culture, life history, personality, and family influences.

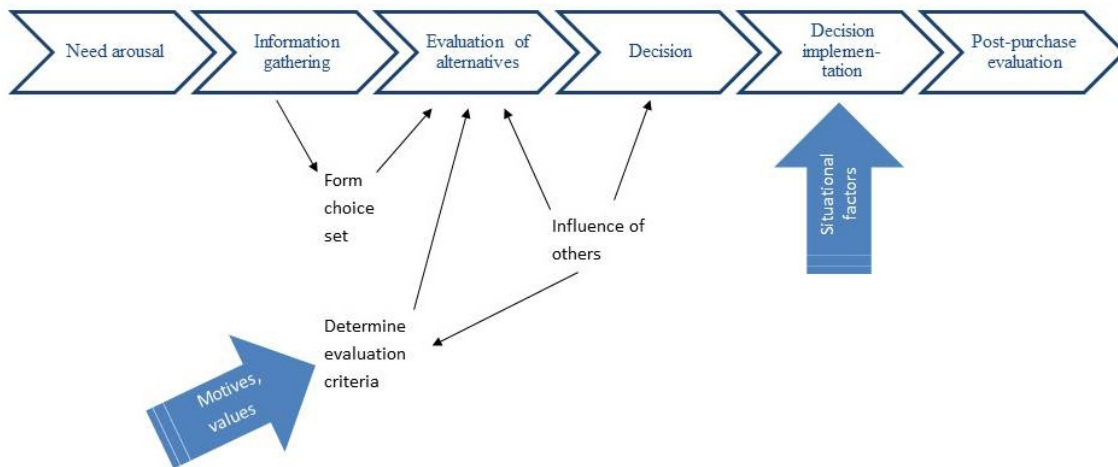
Another study by Foskett and Hemsley-Brown (2001, in Maringe & Carter 2007) integrates the views of many previous studies by suggesting that the higher education choice is neither completely rational nor irrational or random, but that the decision is affected by three broad elements, namely the decision-making context (including the societal, cultural, economic and policy issues influencing the decision), decision influencers (family, friends, teachers, media, ...), and finally, the students themselves in terms of how they see themselves, what available pathways they perceive to exist, and what personal gain they estimate to get from any specific choice. The authors conclude that the decision-making is a complex, dynamic and reflexive process.

The higher education institution choice process extends over a long period of time (Brown et al. 2009, in Moogan 2011). Students may start the information search to support the decision-making a year in advance, or even earlier (Moogan 2011). A prospective student may land on any university website any time of the year, and might

not return if their first impression is not favourable. To reach out to every potential student visiting the website, universities would need to keep their marketing communications content available and up-to-date also outside application times.

Figure 1 describes the steps involved in a typical highly complex decision making process, such as selecting higher education. The decision-making process starts with needs arousal, where the student recognizes a problem or need (such as wishing to study in a field that is not available in his or her home country institutions), and develops a motivation to study abroad in order to fulfil that need. In the information gathering phase, prospective students start to search for information about the different options they have. This thesis focuses on the university website as a source of information. While gathering information, the prospective student forms a perception about where each institution stands on each attribute. In the evaluation phase, the student analyses the information they have collected about their choice set of institutions and evaluates them using some importance weights based on how much they care about each attribution in relation to each other. In the end of the evaluation of alternatives, the student has some order of preference for the institutions. Their final decision may still be affected by influence of others and situational factors. Finally, after the student has made the purchase (enrolled at a university, paid the possible tuition fee and started studying), they will evaluate whether they made the right decision for themselves. (Kotler & Fox 1995.)

**Figure 1: Steps in a highly complex decision-making process**



*Adapted from Kotler and Fox (1995, 251).*

Describing student decision making as a process has also been criticized. Chisnall (1997, in Maringe & Carter 2007) states that it is an oversimplification to consider the decision-making process to be rational or even sequential. Solomon (2002, in Maringe & Carter 2007) worries that young people are not patient and disciplined enough to consider all available information carefully in a meticulous manner, thus subjecting the decision-making to factors of chance.

The criteria the prospective students use to evaluate their options affect mostly the 'evaluation of alternatives' stage in the decision-making process. However, I would like to point out that the student's interests and their relative importance to him or her personally probably also affect the information gathering phase, in terms of how much effort the student will put into looking for information on each topic in the information gathering stage. This thesis is mostly focused on issues that affect the middle stages of the decision-making process, namely information gathering (step 2) and evaluation of alternatives (step 3). In addition, the final step of post-purchase evaluation will also be discussed briefly in terms of student satisfaction and retention, as these are related to the expectations that the student has built in the earlier phases of the decision process.

When it comes to international studies, the prospective student not only looks for suitable programmes and appealing institution, but simultaneously need to select a country to live in. In the literature, there are varying opinions about the order in which the student makes these decisions.

Bourke (2000) has studied factors that influence which host nation a student will choose. First of all, they may pick a country on the basis that they have already chosen the university they want to enrol in, and that university is located at that country. Other reasons were knowing someone who studied there, good educational reputation of the country, or seeing studying there as a status symbol.

According to Bourke (2000), and Srikatanyoo and Gnoth (2002, in Hildén 2011), fieldwork evidence exists to support the notion that prospective foreign students first choose the host country for undergraduate study, and only then select the host university. However, they did not take a stance on whether this result also applies to graduate study. Maringe & Carter (2007) also found in their study that African students wishing to study in the UK find the choice of institution to be less important than the choice of the country.

On the other hand, course or study programme content has widely been defined as one of the most important decision-making variables (Connor 1999, Ivy 2008a&b, Soutar and Turner 2002, Whitehead 2006; all in Moogan 2011) – even to the extent that the student will accept any condition of the other decision criteria: personal, country, city, and institution related factors (Hooley and Lynch 1981, in Cubillo et al. 2006). According to Moogan (2008, in Moogan 2011), the prospective student often picks the preferred programme early on in the decision-making period. Once the prospective student has decided what subject he or she wants to study, his or her list of potential places to study can already be narrowed down to those universities that offer the desired programme.

#### **2.2.4 Decision criteria**

Many studies have modelled international student decision making by a combination of push and pull factors (e.g. Baldwin & James 2000, Mazzarol 2001 in Maringe & Carter 2007, Mazzarol & Soutar 2002, Moogan et al. 1999, Gomes & Murphy 2003).

Push factors are related to economic or political conditions and seem to have a more significant role in the choice of the host country (Maringe & Carter 2007). They influence the first stage of the decision process, when the student initially starts looking for a place to study abroad. For example, for international students from Asia and Africa the key push factor to study abroad was the difficulty of gaining access to higher education in their home country. (Mazzarol & Soutar 2002.) The institutions in their home country might not offer the desired programme at all, or access to it might be unattainable e.g. due to low admission quota or high study fees. Therefore, the students need to gain their qualifications in another country. Understanding the push factors in higher education choice helps university student recruitment staff to conceptualise the recruitment environment prevailing in the students' home countries (Zimmermann 1995, in Maringe & Carter 2007). They might also help the university staff to look at their offering from the perspective of the prospective students, thus enabling making the marketing communications content more customer-oriented.

On the other hand, pull factors have a key role in attracting the student to a particular destination and host country (Mazzarol & Soutar 2002). They are also related to the institution, its location, and the programmes on offer, and exert greater influence on the choice of a specific institution (Maringe & Carter 2007). Students often see university as a bundle of services including e.g. teachers, facilities and services, rather than as one homogenous entity (O'Mahony et al 2001, in Gomes & Murphy 2003). In addition to the educational service (the core service), the student also acquires a pack of jointly provided services from the institution. These additional services, called peripheral or auxiliary services, could be related to use of facilities, administration, or specific support services for international students, et cetera. (Cubillo et al. 2006.) Some of them are indispensable in terms of execution of the core service, while others are meant to

support the overall quality of the bundle of services, and can even be used to differentiate the institution's offering from competitors (Carmen et al. 1980). Additionally, the services that the students receive outside the university environment in the host city and host country (e.g. immigration services), called secondary services, affect their experience (Cubillo et al. 2006). When making a higher education choice, the student thus makes decisions based on the bundle of services, not just the core service (Cubillo-Pinilla et al. 2009).

Students do not only consider the programme offerings of educational institutions in different countries, but also their personal and environmental circumstances affect their choice (Bourke 2000). When examining international student decision-making, most authors have focused on the institution, the programme of study, and the personal reasons that the student might have. Cubillo et al. (2006), however, have emphasized also the perceptions that the prospective student holds about the physical context of the institution: the country and city where the educational service is produced and consumed.

Cubillo et al. (2006) grouped issues influencing the decision-making of prospective international students into five categories:

- 1) personal reasons (including advice from the student's own network, and personal aspirations)
- 2) host country image (e.g. cultural distance, reputation, cost and standard of living),
- 3) host city image (e.g. size of city, international environment),
- 4) institution image (consisting of corporate image and reputation, faculty, and facilities), and
- 5) evaluation of the programme of study (e.g. recognition, quality programmes, specialization).

All of the five factors contribute to the international student's preferences and purchase intention. They overlap each other to some extent and are somewhat dependent on each other. According to Cubillo-Pinilla et al. (2009), there is a positive relationship between

the country image and the institution image, meaning that the institution image in the prospective student's eyes can be strongly enhanced by a positive country image. A similar strong, positive relationship was found between the institution image and the programme image. In addition, the authors found a moderately positive relationship between the country image and programme image. Thus, the final effect on the purchase intention is in the interplay of the different factors.

In this thesis, I follow Cubillo et al.'s (2006) five factors and use them to structure this chapter. However, I also look into what other authors have said about issues that matter to the prospective student. I will use these findings in building a more comprehensive framework of international student decision-making criteria.

#### ***2.2.4.1 Personal reasons***

In Cubillo et al.'s (2006) model, prospective students personal reasons related to personal improvement, ethnocentrism, and advice are said to have an effect on their purchase intention. Their list of attributes related to ethnocentrism and personal improvement include enhanced career and future job prospects, future earnings prospects, higher status attached to studying abroad, living in a different culture, the opportunity to make international contacts, and opportunity to improve language skills. With the exception of earning prospects, Bourke's (2000) list of personal reasons to study abroad includes these same items, adding the opportunity to gain independence. Advice or recommendation from the prospective student's contact network, such as his or her family, friends, and professors, also affects their purchase intention (Cubillo et al. 2006), as discussed before within the context of who makes the higher education decision.

In a study by Binsardi and Ekwulugo (2003, in Cubillo et al. 2006), over half of the prospective students who responded to their survey thought that promotion strategies based on student networks were the best: advice from current students was deemed a good channel for communicating a positive institutional or study programme image.

Advice from current students can be incorporated to the university website e.g. by providing space for student testimonials. Also Moogan (2011) found that prospective students would value the opportunity to be in contact with current students who study in the programme they are considering to get information and opinions directly from them. Danko (1986, in Mazzarol 1998) suggested that testimonials of current students may be used to emphasize institutions' positive qualities.

These lists of personal reasons are probably not exhaustive, as any number of other things, such as having a significant other living in another country, may add to the list. Also, there seem to be cultural differences in what prospective students find important. In Maringe and Carter's (2007) focus groups and interviews with African students, the students expressed that they look at higher education as a way to prepare for ambitious leadership positions in their home country, as opposed to British students' focus on pursuing their personal interest in the subject and advancing their careers. In another study, Davey (2005, in Maringe & Carter 2007) found that Taiwanese students and EU students had differing motivations to studying abroad: the Taiwanese students saw higher education in the UK as internationally recognized and useful as a long-term investment, whereas the EU students chose UK mainly as an opportunity to better learn the English language and culture. Maringe and Carter (2007) suggest that the divergences in international students' motivation have important implications for strategic student marketing, recruitment and also retention.

Cubillo et al. (2006) point out that students do not really attend universities to buy degrees, but the end product they are actually looking for is the benefits that a degree can provide, e.g. enhance employment opportunities, social status and lifestyle. Universities can use this notion in their marketing materials by providing information about the future after graduation, such as employment statistics or testimonials of alumni.

Career advancement after graduation is one of the prospective students' priorities. It is often linked to either the reputation of the university (Cubillo et al 2006; Litten and Hall 1989, Moogan and Baron 2003, Murphy 1981, Roberts and Allen 1997; in Moogan



2011) or to the reputation of the course or programme (Yugo and Reeve 2007, in Moogan 2011).

In a study of British students, their main reasons for attending university were career-related: gaining qualifications (mentioned by 68 % of the respondents), improved earning potential (45 %), and improved employment opportunities (44 %) were at the top of the list (National Union of Students 2008, 7, in Moogan 2011). Many of these reasons are probably shared by international students. Therefore, career enhancement issues, such as employment rates, employment destinations and career progression could be used in universities' marketing communication strategies to answer these issues that prospective students are interested in. For example, alumni can be useful promoters of the university as their stories can be used as examples of realized career progression since leaving the university (Moogan 2011).

It is important to include information about the employability of graduates because future employers can be seen as the end customers because they will “buy” the product of education, that is, the trained students (Kotler & Fox 1995). From the employment perspective, future employers are the ones who will evaluate the worth of a particular degree from a particular institution.

#### ***2.2.4.2 Host country image***

Country image or country of origin effect refers to the reputation, mental image or stereotype that a consumer attaches to products or services from a specific country (Nagashima 1970, in Cubillo et al. 2006). When it comes to educational services, the country of origin is very important (Ohmae 1995, in Bourke 2000), as higher education is very much influenced by the culture of the country where the institution is located. Country image may be a powerful tool for differentiating a service (Srikatanyoo and Gnoth 2002, in Cubillo et al. 2006). Some countries' good reputation influences also the perception of prospective students so that they expect the higher education services in

those countries to be of high quality as well. Thus, a nation can have an educational reputation. (Bourke 2000).

Country image has an especially strong influence on the purchase intention and quality perception when the consumer must evaluate an unfamiliar brand (Peterson & Jolibert 1995, Ofir & Lehman 1986, in Cubillo et al. 2006). According to Peng et al. (2000, in Cubillo et al. 2006), considering country image can even be the first step in product evaluation in relation to country of origin stereotypes. Universities may try to influence the country image of the prospective student by providing favourable information about the host country on their website.

Porter (1990, in Bourke 2000) argues that the “country diamond”, or the country’s factor conditions, demand conditions, related and supporting industries, and firm strategy structure and rivalry, affects the international success or failure of its service firms. Service industries in certain countries have created clusters around an industry, and thus created a national competitive advantage in that field (Porter 1990). Bourke (2000) proposes that a country can have a reputation that is related to a particular production or service industry, such as higher education. Foreign students indeed do choose different study disciplines in different host countries – industries that the country is famous for are more popular than other industries.

Many students decide to study overseas because they want to be educated in English, particularly if their home country’s national language is not an international one. This is why Porter (1990, in Bourke 2000) stresses that national language is an important national resource. Still, many universities offer education in English even if it is not the national language in their country. All of the universities included in the empirical part of this thesis are located in countries where English is not the national language. It depends on the importance the student places on enhancing language skills (e.g. by wanting to learn a certain accent) relative to other decision criteria whether the national language will be a great determinant in their choice of institution.

Bourke (2000) suggests that students prefer information rich countries that have processes and support systems in place. Countries that are information rich also provide freely available data which is accurate and up to date. Such information infrastructure helps foreign students find information about country-related issues that they need to support their decision-making. Thus, institutions located in less developed countries with inferior information infrastructure might have a disadvantage in attracting foreign students (Bourke 2000).

According to Cubillo et al. (2006), host country image is related to cultural proximity or distance between the prospective student's home country and the host country, the host country's social and academic reputation, and the host country's socioeconomic or development level. They also list cost of living, immigration procedures, opportunity of working during the course, and time to get the degree as other component forming this factor.

#### ***2.2.4.3. Host city image***

Secondary services, such as those provided by and in the host city where an institution is located, affect the student's service experience and perception. City image related aspect that affect the prospective student's purchase intention are city dimension, cost of living, linguistic proximity (whether the local language is the same or similar to the student's first language or other languages he or she speaks), safety and security, social facilities, international environment, and the environment around the university. (Cubillo et al. 2006.)

#### ***2.2.4.4. Institution image***

*“[I]nstitutions need to have a reverse lens that allows them to view themselves as the students view them.” (Moogan 2011, 573)*

In the model by Cubillo et al. (2006), the components of their fourth factor, institution image, are items related to and the corporate or university image, the university faculty, and the institution's facilities. Next, I will look into these topics in more detail.

### *University reputation & image*

Oxford dictionary (2012) defines reputation as the beliefs or opinions that are generally held about someone or something. An organization's reputation is held by third parties. Fombrun and Rindova (1999, in Argyriou et al. 2006) define reputation as a collective representation of a brand's (or university's) past actions, describing its ability to deliver value to stakeholders.

In the context of higher education institutions, image can be defined as the sum of beliefs, ideas, and impressions that a student has of an institution (Kotler & Fox 1995). Images are formed by past experience (often lacking in the case of international students), marketing activities of the institution, and word of mouth (Ivy 2001). A brand's image is widely believed to strongly influence buying behaviour (Argyriou et al. 2006).

The difference between the terms 'reputation' and 'image' is that while images are about immediate impressions in the minds of prospective students, reputations are more enduring over time (Grunig 1993, Williams & Moffitt 1997; both in Harrison-Walker 2009). Reputation is bound to the university's history (Bourke 2000), and is built up over time as a result of consistent performance – although it can be reinforced by communications – while images can be built up more quickly via an effective communication programme (Gray & Balmer 1998, in Harrison-Walker 2009). An image can be conveyed during a single visit to a university website, whereas building a reputation takes a longer time. Reputation may also be seen as a barrier of entry to newer educational institutions (Sapir and Winter 1994, in Bourke 2000), and thus as a form of competitive advantage. Also images are not absolute, but are relative to the images of other higher education institutions (Ivy 2001). According to Kotler and Fox

(1995), institution should do their best to have a clear, positive image that is distinctive and memorable. This study focuses on this image in the eyes of the prospective international student.

However, it is crucial to note that on the web, reputation can be damaged quickly as the word spreads fast – therefore, reputation management on the internet cannot be ignored (Chun & Davies 2001, in Argyriou et al. 2006). In the time of social media, it is increasingly easy for (dis)satisfied consumers to voice their opinions about brands, products and services. Students form images of institution based on information that tend to be very limited, and very often the prospective student's perception of the institution does not fully match its actual quality and may be even inaccurate. Whether the image is realistic or not, it affects the prospective student's likelihood to attend the institution. (Kotler & Fox 1995.)

An institution's image and reputation are also linked to the perception that its constituents have about the quality of its operations. Since quality as a concept in higher education is a complex and multifaceted, a single appropriate definition of quality is difficult to find (Harvey and Green 1993, in Voss et al. 2007). Each stakeholder in higher education has their own particular view of quality which depends on their specific needs (Voss et al. 2007). To make an impression on these different groups may require different arguments. For example, existing students may be glad if a course involves only a few case exercises as opposed to many (so that their work load is smaller), whereas from employers perspective', the more practice the students get, the better. However, Kotler & Fox (1995) suggest that the institution's prestige or reputation for quality is actually often more important than its real quality because "it is the university's perceived excellence which, in fact, guides the decisions of prospective students".

In Cubillo et al.'s (2006) model, attributes related to institution image are institution prestige, ranking position, brand reputation, academic reputation, researcher reputation, and quality reputation. Also Bourke (2000) suggests that in addition to knowledge,

reputation is one of the key resources of universities when it comes to impact on their competitive advantage.

Customers' perceptions of a firm's service, or in this case students' perceptions of a university's service offering, are influenced by tangible cues. In education they could include e.g. physical facilities, staff profiles, and publications (Lamb et al. 2008, in Mpinganjira 2009). The university can try to influence the prospective student's perception by placing such cues on the university website, either in the form of text (e.g. providing information about the merits of its lecturers) or visual cues (e.g. a campus tour video).

Prospective students find reputational cues in some attributes attached to a university. For example, the university's ranking position can be displayed as a signal of quality and good reputation. Another reputational cue is high entry requirements – often institutions that have a high number of applicants are perceived by students to be the best institutions (Bourke 2000). This may be related to the prestige of studying in a place where only limited elite is accepted to. If a university indeed receives a high number of applicants or is otherwise very selective, it may have a possible effect on its reputation in the eyes of the applicants if this information is communicated on its website.

### *Faculty staff*

According to Pauli (1991, in Bourke 2000), people are the key resource of service organizations. The people a university employs need to commit to finding the ways to satisfy the university's customers' needs. When the students are seen as customers, the employees that serve them are e.g. the lecturers and other teaching staff who provide the education, and the service personnel providing the supporting administration. By faculty-related decision criteria, Cubillo et al. (2006) meant the expertise and professional experience of teaching staff.

The aspect of high quality education perhaps most important to students is the quality of teaching and the lecturer (Hill et al. 2003, in Voss et al. 2007). In Moogan's (2011) study, cues attached to quality teaching were small group sizes and close interaction with expert academic tutors.

One way of promoting the image that an institution offers high-quality education is to introduce some of its best lecturers on the website. According to a study conducted by Voss et al. (2007, p. 957), students hope lecturers to be "knowledgeable, enthusiastic, approachable, and friendly". When choosing suitable lecturers to introduce, it should be made sure that they contain these qualities. When presenting the lecturers, these qualities could be demonstrated e.g. by offering information about where they have gathered their knowledge and credentials, why they are enthusiastic about their subject and teaching it, and perhaps something about availability to cooperation with students.

A study by Voss et al. (2007) has shown that students were more motivated by the vocational aspects of their studies than by academic interests. If this finding is consistent over different studies on the topic, when it comes to the marketing communications on their website, universities should consider placing more emphasis on how study experiences build up students' professional skills and on the employability of graduates, rather than on the academic interests. However, both topics are surely interesting to prospective students, so it is not recommended to leave the academic interests completely out of the communication materials.

### *Facilities*

In terms of facilities, Cubillo et al. (2006) have listed as important attributes the atmosphere in the university campus, social life at university, safety and security at campus, library facilities, availability of computers, quiet areas and spaces for self-study, and sports facilities. High standard facilities are a relevant factor in influencing the prospective student's decision making. According to Price et al. (2003, in Cubillo et al. 2006), social life at the university and its surroundings is the most important facility-

related factor, whereas safety, security and sports facilities have less significance. However, the relative importance of different facilities might depend on the personality and interests of the prospective student – for example, a sports-enthusiast would surely put a lot of weight on the quality of the university's sports facilities. Although campus surroundings and facilities matter to the student, their weight in the decision-making process is less important than that of some other factors (James et al. 1999, in Gomes & Murphy 2003).

#### ***2.2.4.5 Programme evaluation***

The student's perception of the programme offering may be one of the most decisive factors (Bourke 2000). According to Hooley & Lynch (1981, in Cubillo et al. 2006, Moogan 2011), the suitability of the study programme to the student's expectation is the most important factor, so much so that the student might choose to accept any, even unsatisfactory level of the other (country, city and institution image, personal criteria) factors.

O'Mahony et al. (2001, in Gomes & Murphy 2003) claim that in students' university choice, the reputation and availability of a particular degree programme actually has more significance than the university's overall reputation. A good reputation for a particular degree can support the reputation of the whole university, but similarly, a poor reputation for some other degree can also weigh down the whole institution.

Prospective students cross-check programmes promoted by competing institutions to define the most suitable one for them (Krampf & Heinlein 1981, in Cubillo et al. 2006). In the literature, major reasons for selecting a specific academic programme have been cited as its reputation or location (Morrow et al. 1995, Roberts & Allen 1997, Roberts & Higgins 1992, Yugo & Reeve 2007; all in Moogan 2011) and the employment opportunities it provides (Deacon 1994, Ivy & Naude 2004, Moogan & Baron 2003, Roberts & Higgins 1992; all in Moogan 2011). Other elements influencing programme evaluation are a wide selection of courses, course quality, and international recognition



of the degree, availability of course, entry requirements, and costs and availability of financial support (Qureshi 1995, and Turner 1998, in Cubillo et al. 2006; Bourke 2000). In Cubillo et al.'s (2006) model, the programme evaluation factor includes these attributes: international recognition, programme suitability, specialization and quality, recognition by future employers, and total cost and financing options involved in the programme.

Bourke (2000) suggest that tuition fees are important in prospective students' decision making. However, the students in her study did not rate fees to be one of their top priorities. Also Joseph et al. (2005, in Moogan 2011) recognized that whereas cost of studying matters to students, it was perhaps not as important as some other variables for their decision-making. Another cost-related issue important to students is the incremental costs of studying abroad that consists of living expenses, such as food and accommodation, required visas, health benefits, etc. Study fees and incremental costs together determine how much investment is required from the student to complete a degree in that location, and what the total price is compared to alternative universities in other locations.

#### ***2.2.4.6 Relative importance of criteria***

To compare different universities, prospective students will determine what is important to them and then make either conscious or unconscious trade-offs among their preferences to find the best match for them (Soutar & Turner 2002, in Cubillo et al. 2006). Moogan (2011) states that rather than asking students to reflect on their key decision-making variables, the comparative significance of those factors should be studied. The relative importance of different factors to the prospective student's decision-making should be considered when planning the amount, structure and order of information on the university website. The students wish to read about the highest priority topics in detail, where as some less important topics could be mentioned rather briefly.

What is the relative importance of the decision criteria? A handful of authors have studied the relative importance; their findings are reported below. Different authors have similar lists of items in their top lists, so there seems to be some consensus on the issue. However, their order of importance varies, and there are some contradictions between studies, e.g. about whether facilities have a high or low priority. Bourke (2000) has made a list of the most important attributes. In order of importance, her list is topped by educational quality of course, followed by the recognition of the degree overseas, availability of courses at the third place, learning and teaching styles in the fourth place, costs at the fifth, entry requirements at the sixth, and finally status given to the university in the applicant's home country in the seventh place. Baldwin and James (2000) claim that explanations of teaching and learning approaches within each programme would be the most useful information universities can give, in order for student to determine if a particular course is right for them. In Padlee et al.'s (2010) study, the most important attributes were admission requirements, specialization, academic staff, facilities, career advising, immigration issues, facilities for practising religion, and internet facilities. Moogan's (2011) top three most important issues were teaching quality, course content, and reputation of the institution. Also Mpinganjira (2009) has set some priorities to which factors prospective student consider more important than others; with career related issues being the most important, and e.g. language improvement being less important.

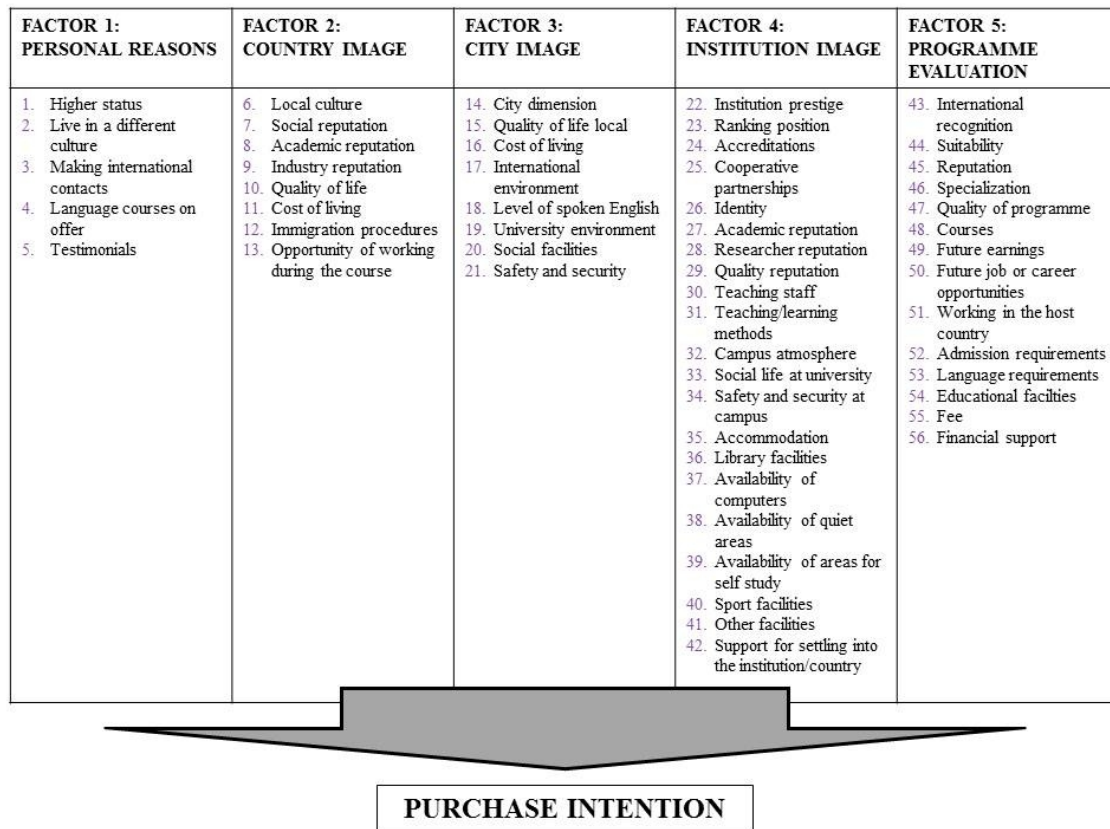
Based on findings from previous studies, quantifiable importance weights that should be put on each factor or attribute cannot yet be determined in order to, for example, forecast the success of different institution's student recruitment. Then again, some conclusions can be made about whether any factor 'x' is more or less important than some other factor 'y'. However, because the weighting is personal and depends on each individual's interests and preferences, I have not attempted to dive further into the topic in this thesis.

### *2.3 Framework*

The main research question of this thesis is “How can universities use their website content to facilitate international Master’s degree student decision-making?”. Additionally, a supporting sub question was defined as “What kind of website content is relevant, informative and persuasive in terms of international student decision-making?”. To address this issue, a literature review on international student decision-making was conducted in order to identify the relevant issues that influence decision-making and thus, which ought to be part of website content.

I have compiled a framework, presented in Figure 2, which synthesises the issues that different authors have recognized as relevant for prospective international students. The framework’s structure follows the work of Cubillo et al.’s (2006) five factors that influence prospective student’s purchase intention, namely personal reasons, country image, city mage, institution image, and programme evaluation. However, I have extended their original model by complementing it with the findings of other authors on issues that influence international student decision-making. Especially Bourke (2000) was a significant source of information on this issue. Altogether, the framework is built on the contributions of 30 different scientific articles, books or other sources. In addition, the framework includes a few “emerging” items that the author of this thesis has added during the website content coding process explained in chapter 3. The list of authors that have contributed to each of the 56 categories in the framework can be found in Appendix I. These authors were also mentioned in the literature review while going through each of the five factors.

**Figure 2: International student decision-making variables framework.**



My contribution as the author of this thesis has been to compile and adapt the views of a multitude of previously separate studies into a comprehensive whole. This compilation has been done specifically for the purpose of studying marketing communications content in relation to international student decision-making.

The framework defines the issues that are relevant in terms of international student decision-making. The empirical part of this thesis proceeds to answer the remaining two dimensions regarding university website content: whether the content about the relevant themes was also informative and persuasive in terms of both quantity and quality of the content.

In the previous chapters I have gone through five factors, namely personal reasons, host country image, host city image, institution image, and programme evaluation, that affect the prospective students' purchase intention. I have compiled them into a framework of

56 issues that have been identified in the literature as influencing the international student's purchase decision. A more thorough explanation of this framework and the validation of its items will be given in the methodology chapter of this thesis, and in the coding scheme found in Appendix I.

### **3 METHODOLOGY**

In the literature review I examined previous studies into higher education marketing and student decision-making. In order to synthesize the views of previous authors, I compiled a framework that lists 56 issues that affect the prospective student's purchase intention. In the empirical part of this study, I move on to test this framework on a sample of eight universities in Denmark, Finland, Norway and Sweden. The purpose is to answer my research questions by examining whether the website marketing communications content aimed at prospective international Master's degree students corresponded to these students' information needs defined in the literature in terms of relevance, informativeness (quantity of information on each topic) and persuasiveness (quality of information on each topic).

The purpose of this chapter is to explain the empirical method used in this study to collect and analyse data and to make inferences about it. First in focus will be the object of this study, namely the university websites. In chapter 3.1, I discuss which universities and their programmes were selected for this study, and which parts of their website content will be the unit of analysis. Chapter 3.2 presents the content analysis method used in this thesis: I explain the purposes that content analysis is used for, describe the content analysis process, present qualitative content analysis more specifically and discuss how the quality of the method can be evaluated. Chapter 3.3 is about instrumentation: first, it presents again the coding scheme which is equivalent with the framework of this thesis presented in the end of the literature review. Then, I will present the grading methods and data collection procedures used in this study. Finally, I will discuss the findings that resulted from test coding, and address the intrarater reliability issue.

### *3.1 Website selection process*

For the content analysis, altogether eight universities were selected from Denmark, Finland, Norway and Sweden. In general, Nordic countries refers to a region in Northern Europe that includes Denmark, Finland, Iceland, Norway, Sweden and their associated territories, namely the Faroe Islands, Greenland, and Åland (All Words 2012). These five countries and their three autonomous regions share a lot of common history and have common traits in their societies, such as political systems and cooperation, and the economic and social system called the Nordic model, which refers to mixed market economy with a strong welfare state.

Sometimes Iceland, Faroe Islands and Greenland have been referred to as “West Nordic Countries”, especially in the context of tourism cooperation (North-Atlantic Islands 2012), due to their geographic location in the Northern Atlantic separating them from the continental Nordic countries. This geographical distance is the first reason to exclude Iceland from this case study. The second reason is the large difference in the amount of population that separates Iceland from Denmark, Finland, Norway and Sweden: with its population of 319,575 (Statistics Iceland 2012), Iceland represents less than 2 % of the total population in the Nordic countries, whereas the size of population of its peers is much larger, ranging from 5,017,500 in Norway (Statistics Norway 2012) to 9,522,998 in Sweden (Statistiska centralbyrån 2012). The purpose of narrowing the study to Denmark, Finland, Norway and Sweden was to study a geographic, culturally closely knit area where the profiles of these countries are similar in terms of population, location, culture, and welfare. Therefore, the universities included in the study have very alike national backgrounds so they have a similar starting point in terms of communicating about the host country factor.

The number of universities was limited to two institutions per country. The reasoning for this is two-fold: first, including two universities enables gaining two different perspectives or cases from each country. Second, as the university websites are studied in great detail and the content analysis was conducted manually with limited resources,

it was feasible to study a rather small number of cases. The highest-ranked universities in each country were chosen to ensure that they are the same level, being realistic competitors of each other. Since many different rankings were used, this was, however, a convenience sample. As this sample of universities is not representative of all universities in each country, the results are not generalizable in terms of evaluating the total population.

#### *Institution selection criteria*

The institutions were selected based on a five-step process or criteria described below:

1. The institution's main campus is located in Denmark, Finland, Norway or Sweden.
2. The institution is a research-based science university.
3. The institution offers a minimum of five Master's degrees in technology or engineering in English (see below for programme selection criteria).
4. Out of universities filling criteria 1-3, two universities with the best rankings will be selected from each country. As not all of the rankings have any representation that fills the criteria 1-3, multiple rankings had to be included. Each qualified institution was given points based on their position in different rankings (all four considered rankings given equal emphasis), and then those two with overall best positions from each ranking were selected. The rankings that are considered are:
  - Academic Ranking of World Universities in 2010 (Shanghai list)
  - Times Higher Education World University Rankings 2011-2012 (Times)
  - Ranking Web of World Universities 2012 (RWW)
  - QS World University Rankings 2012 (QS)

In Finland and in Norway, there were not enough universities filling the criteria 1-3 in Shanghai list, Times and QS. Therefore, the second institution was selected based on RWW only.

The field of science was selected as that of technology and engineering. The reason for choosing one specific, though broad, field was that it makes those institutions' website content more comparable: it is more feasible to compare two engineering programmes



than to compare an engineering programme to a performing arts programme, as students of different fields are looking for different kinds of study experiences, e.g. in terms of facilities required, learning cultures or employment prospects. The case institutions were required to offer at least five Master's degree programmes in the field of technology or engineering, signalling that this is a significant and emphasized field of study for them. The technology emphasis in institution profiles can also be seen in the case institutions' names, many of them being called technical universities or institutions of technology. However, this is an observation rather than a requirement.

### *Programme selection criteria*

For each university, five programmes were chosen to be included in coding.

1. Master's level programme (requires a Bachelor's degree to enter)
2. Programme is conducted in English
3. Name of the programme includes keyword(s) "technology" and/or "engineering"
4. In the case that the pool of programmes offered by a university matching criteria 1-3 consists of more than five programmes, five of them were selected by arranging them in a list and five of them were drawn randomly, using an online random number generator ([www.random.org](http://www.random.org)). If any university does not have at least 5 programmes matching criteria 1-3, the university cannot be included in this study.

### **3.1.1 Profiles of case universities**

The profiles of the selected eight case universities are presented in Table 1. Included in the table are their countries, names, abbreviations used in this study, city, number of students enrolled, the five programmes selected for this study, and their ranking positions based on which they were selected.

**Table 1: Profiles of case universities.**

<b>Country</b>	<b>University name</b>	<b>Abbreviation</b>	<b>City</b>	<b>No. of students</b>	<b>No. Of programmes matching criteria</b>	<b>Selected programmes</b>	<b>Rankings</b>
Denmark	Aarhus University	Aarhus	Aarhus	34129	9	1. Architectural Engineering (MSc in Engineering) 2. Biosystems Engineering (MSc in Engineering) 3. Optics and Electronics (MSc in Engineering) 4. Technical Geology (MSc in Engineering) 5. Technology Based Business Development	98 in Shanghai list, 125 in Times, 3 in Denmark in RWW, 89 in QS.
Denmark	Technical University of Denmark	DTU	Copenhagen	7597	23	1. Environmental Engineering 2. Pharmaceutical Design and Engineering 3. Physics and Nanotechnology 4. Engineering Design and Applied Mechanics 5. Architectural Engineering	151-200 in Shanghai list, 178 in Times, 2 in Denmark in RWW, 132 in QS
Finland	Aalto University	Aalto	Helsinki/Espoo	19737	16	1. Bioproduct Technology 2. Electrical Engineering 3. Process Systems Engineering 4. Radio Science and Engineering 5. Service Management and Engineering	401-500 in Shanghai list, 301-350 in Times, 8 in Finland in RWW, 222 in QS.

Finland	Tampere University of Technology	TUT	Tampere	10400	5	1. Biomedical Engineering 2. Business and Technology 3. Electrical engineering 4. Information technology 5. Science and Bioengineering	6 in Finland in RWW. (267 in QS in Engineering & Technology).
Sweden	Chalmers University of Technology	Chalmers	Gothenburg	11000	20	1. Production Engineering 2. Wireless, Photonics and Space Engineering 3. Engineering Mathematics and Computational Science 4. Nanotechnology 5. Structural Engineering and Building Technology	201-300 in Shanghai list, 226-250 in Times, 9 in Sweden in RWW, 223 in QS
Sweden	KTH Royal Institute of Technology	KTH	Stockholm	13363	26	1. Industrial and Environmental Biotechnology 2. Civil and Architectural Engineering 3. Electric Power Engineering 4. Nanotechnology 5. Sustainable Energy Engineering	201-300 in Shanghai list, 187 in Times, 2 in Sweden in RWW, 142 in QS
Norway	Norwegian University of Science and Technology	NTNU	Trondheim	22000	15	1. Biotechnology (MSc) 2. Chemical Engineering (MSc) 3. Natural Gas Technology (MSc) 4. Petroleum Engineering (MSc) 5. Maritime Engineering	201-300 in Shanghai list, 251-275 in Times, 1 in Norway in RWW, 289 in QS.

Norway	Stavanger University	Stavanger	Stavanger	8500	5	1. Environmental technology 2. Offshore technology 3. Petroleum engineering 4. Petroleum geosciences engineering 5. Well engineering	6 in Norway in RWW.
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### 3.1.2 Unit of analysis

The unit of analysis in this study was the written text passages and oral passages in videos on university websites. Only English-language material was included. As the study is about website content that is controlled by the university, only materials (text, pdf-files, etc.) hosted by the institution or embedded on their website (such as videos hosted in YouTube but placed on the institution website) are included in the study: any links leading to external websites of third-parties (such as national promotion agencies) are excluded.

As prospective students cannot be expected go through every single page on a website, the content analysis was focused only on certain sections of the website. The guiding principle in the selection of these pages was target group focus, or in other words, the perspective of international degree students. In order to treat all international students equally regardless of their country of origin and mother tongue, only English-language material was analysed. Also, because the purpose of this thesis is to study universities' marketing communications, the focus was on marketing materials targeted at this segment of prospective students. Content that is not related to the 56 categories of the coding scheme is also out of scope. Table 2 explains which website sections were included in the analysis.

**Table 2: Website sections analysed.**

<b>What was included</b>	<b>What was not included</b>
- Front page of the institution website - Landing pages of any links on the	- Programme-specific sections of other programmes than the five analysed

<p>front page related to studies or students or international services, but only if these lead to pages hosted by the university (e.g. university library or student union is still acceptable, if their website is hosted by the university).</p> <ul style="list-style-type: none"> <li>- Any section reachable from the front page targeted at students, titled with keywords such as “studies”, “education”, “student life”, “student guide”, et cetera. Also the landing pages of any links that are in this section but lead to some other part of the university website.</li> <li>- Out of programme-specific sections, only programmes listed in Table 1.</li> </ul>	<ul style="list-style-type: none"> <li>- Course descriptions of specific courses (in order to limit the workload)</li> <li>- Any other pages that do not match the criteria mentioned in “what was included”</li> <li>- Content related to studies that are offered in a language other than English or which are not available to international degree students (e.g. courses for only exchange students).</li> </ul>
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To keep the study simple, the focus was on link-based website navigation with the assumption that the user would start navigation from the front page. According to U.S. Government website usability.gov (2012), all major options that are available on the website should be shown already on the front page, making this a natural starting point for information search. In reality, the website user might also navigate the website with the help of search engines, or enter any part of the website via direct links from third-party websites.

These are the frames that determine the unit of analysis in this study. As website architecture is not within the scope of this study, the location of the content within these frames (for example, whether some piece of information is on the university front page, or on the last page of an electronic study guide) is not commented on.

### *3.2 Content analysis method*

Content analysis is a systematic technique where words in texts are compressed into fewer content categories, based on coding rules that are explicit in order to ensure replicability (Stemler 2001). Content analysis studies recorded human communications, where coding or the process of transforming data into categories is crucial (Babbie 2001, in Kohlbacher 2006). Originally the term referred to methods concentrating on quantifiable aspects of texts, e.g. by calculating the frequency of certain words. The discipline has traditionally been dominated by quantitative methods (Kohlbacher 2006). However, the concept has been extended to include all procedures using quantifiable categories (Titscher et al. 2000, in Kohlbacher 2006).

As an empirical research method, content analysis is not only a practical tool for gathering empirical data, but also a framework for analysing it (Eriksson & Kovalainen 2008). In this chapter, I will first go through what purposes content analysis can be and has been used for. Second, I will explain how content analysis fits to qualitative studies. Third, I will describe the qualitative content analysis process. Finally, I will discuss how the quality of content analysis methods can be evaluated.

#### **3.2.1 Purposes of content analysis**

Holsti (1969) goes through possible purposes of content analysis. Content analysis can be used for making inferences about the antecedents of communication (e.g. about who the author is and why they are communicating), as well as consequences of communication (e.g. the impact on the target group's behaviour). From my research questions' perspective, the purpose of describing the characteristics of communications and making inferences about them would be the most relevant, as this allows both evaluating whether the message responds to the needs of the recipient (prospective students) and about whether the case universities have a shared understanding with the students about what information is relevant to decision-making. The elements to analyse are the channel, the message and the recipient. Berelson (1952, in Holsti 1969) lists

possible things to identify by such content analyses: techniques of persuasion (e.g. the arguments universities use to persuade prospective students to apply), style of channel (what are websites like as a marketing communications channel), trends in communication content (how are different universities' websites similar in terms of content to this target group), characteristics of sources in relation to their messages (e.g. how do the universities explicitly differentiate themselves within their content), comparing communication content to standards (e.g. if there was a standard list of required disclosures), characteristics of audiences in relation to the messages targeted at them (e.g. how does the website content correspond to the prospective students' information needs), and patterns of communication.

Content analysis is a suitable method for analysing written communication (Kolbe & Burnett 1991, in Gatfield et al. 1999). It has been used e.g. for studies on company image and service brand positioning on the web (Dou & Krishnamurthy 2007, Truell et al. 2005; all in Van Rooij & Lemp 2010). In higher education context, content analysis has been used to analyse specific marketing components, e.g. images on college viewbooks (Klassen 2000, in Van Rooij & Lemp 2010) or the textual content of printed study guides (Gatfield et al. 1999). In this study, content analysis will be used in a higher education context to analyse the written and oral marketing communications on university websites.

### **3.2.2 Content analysis as a qualitative method**

Content analysis means applying meaning to information (in the case of this study, to materials on university websites) by identifying patterns in the text (Wilkinson & Birmingham 2003, in Van Rooij & Lemp 2010). The essence of content analysis is identifying meaningful statements within the recorded communications (Gillham 2000, in Kohlbacher 2006). Qualitative content analysis includes searching for underlying themes in the materials being analysed (Bryman 2004). Bryman (2004, 542) defines qualitative content analysis specifically as:

*“an approach to documents that emphasizes the role of the investigator in the construction of the meaning of and in texts. There is an emphasis on allowing categories to emerge out of data and on recognizing the significance for understanding the meaning of the context in which an item being analysed (and the categories derived from it) appeared.”*

Emphasizing the role of investigator means that the person coding the data must be able to interpret meanings. Some meanings may be difficult to express in writing or to identify. For example, communicating prestige does not necessarily mean an explicit statement like “we are a highly prestigious institution”, but might have to be interpreted from expressions related to external recognition of the institution’s prominence and distinction, even though the accomplishments of its individual researchers and alumni. That is why reflexivity is a unifying element for all qualitative research, as the researcher takes part in the knowledge production (Eriksson & Kovalainen, 2008). Gläser and Laudel (2004, in Kohlbacher 2006) argue that a theory-based category system is open and can be changed during data extraction if relevant data that cannot fit into any categories is found.

When compared to quantitative research, qualitative data investigation methods can appear uncertain (Dick 1990, in Gatfield et al. 1999). Clear rules considering the data collection and analysis procedures can be difficult to determine (Cicourel 1964, in Gatfield et al. 1999). However, Gatfield et al. (1999) point out that when it comes to analysing textual data, there are few alternatives to taking the qualitative approach – quantitative content analysis methods, such as counting key words, can only go so far, and cannot facilitate as rich and deep understanding. Whenever the communicated message is meant to be read by more than one person, multiple interpretations come into the picture, as no two people understand meanings in exactly the same way. From this perspective, objectively true or correct interpretations do not exist, so it is in the very nature of qualitative study that the researcher uses their own personality and perception to analyse the object of research.



### **3.2.3 Qualitative content analysis process**

In general, qualitative research often follows a circular process: one must move back and forth during the different phases of the research process as emergent information requires reviewing work already done. The research process is iterative in terms of constant movement between research ideas, theoretical concepts, research design, data collection and findings. (Eriksson & Kovalainen 2008.) Compared to quantitative research, qualitative research is less likely to use restrictive classifications for collection of data in advance and to be driven by specific hypotheses and framework, but is rather more interested in emergent themes (Cassell & Symon 1994, in Kohlbacher 2006). That is why it is reasonable to refine the categories and even research questions during the fieldwork and analysis phases. According to Lueger (2000, in Kohlbacher 2006), it is only at the end of the research process that one will know which questions can be answered by the findings of the study.

The content analysis process includes seven phases: 1) defining the unit of analysis (word, phrase, paragraph, etc.); 2) developing coding categories and a scheme for applying them; 3) testing the coding scheme on a sample case or text; 4) coding of all the materials; 5) checking for coding consistency; 6) drawing findings and conclusions from the coded data; and 7) reporting all the decisions that were made about the coding process (Schilling 2006, Mayring 2000, Zhang & Wildemuth 2009; all in Van Rooij & Lemp 2010).

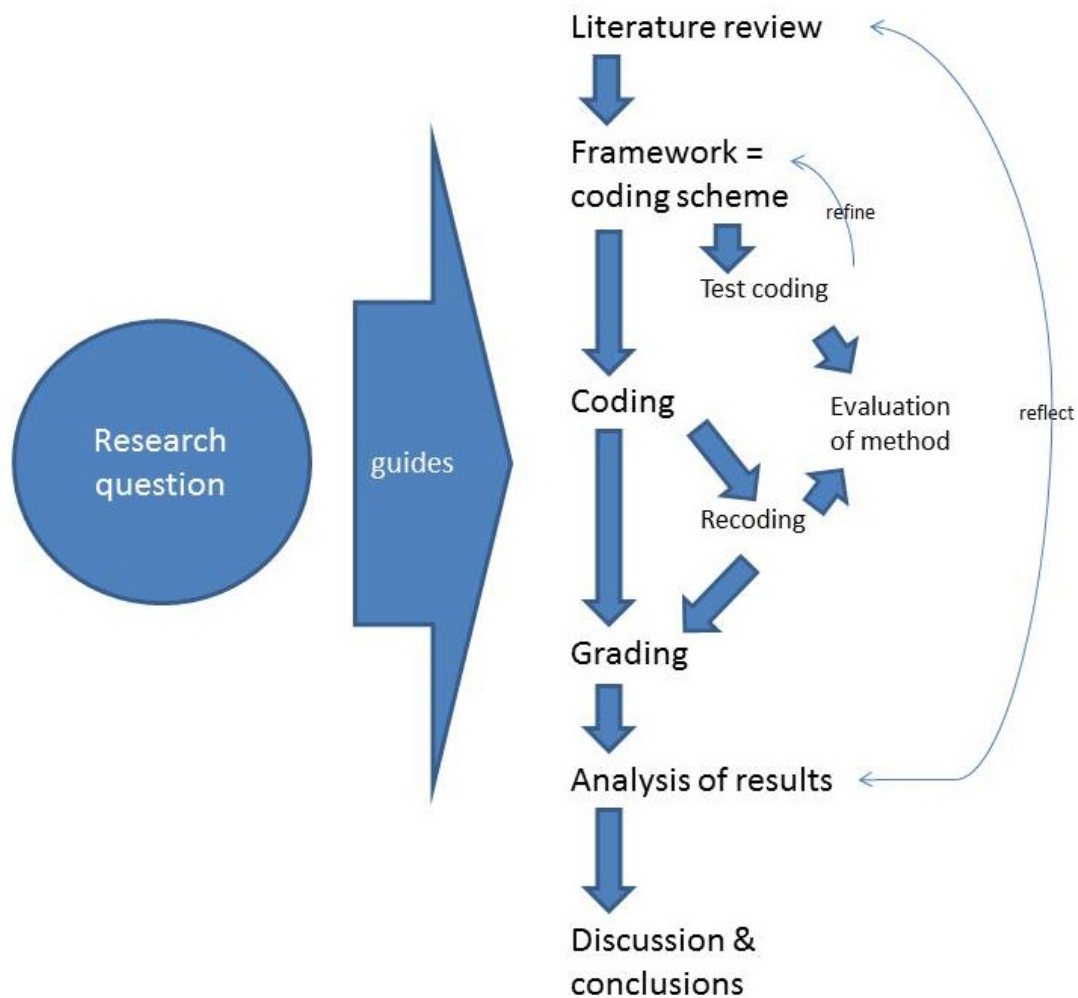
Mayring (2003, in Kohlbacher 2006) recommended three distinct analytical procedures that can be used either independently or in combination: 1) summarizing data, 2) explicating or explaining and clarifying data, and 3) structuring text by extracting relevant information from the text by using a category system. From my thesis' point of view, I believe it would be useful to both summarize and structure the data because this enables the comparison of the websites both to each other and to the prospective students' information needs.

Mayring (2003, in Kohlbacher 2006) lists eight central points to consider when using content analysis:

1. Fit the material to some model of communication: What part of communication is being analysed? My target of analysis is text passages and oral passages in videos on certain parts of university websites. I will examine the correspondence between media content and the cognitive content of the communication recipients (Festinger and Katz 1966, in Gatfield et al. 1999) addressing the issues that are salient to the needs of international students as the target audience.
2. Analyse content systematically and following rules: Go through the content in a systematic and consistent fashion, step-by step.
3. Content categories are in the centre of analysis: as categories are based on text interpretation, they must be defined carefully.
4. Refer to subject instead of technique: how each piece of text connect to the research topic is most important.
5. Verify the instruments by doing a pilot study: test the procedures in a pilot. Gläser and Laudel (2004, in Kohlbacher 2006), however, disagree with Mayring (2003) in that they state that since the category system can be adjusted at any point of the analysis to better match one's research questions and the material analysed, it becomes redundant to make a pilot study or a trial data extraction cycle.
6. Let theory guide the analysis: compare your categories, findings and thoughts to what others have said about the topic in the literature. In content analysis of universities' website materials, the variables of student information needs will be used as a benchmark.
7. Include quantitative steps of analysis, especially if generalization of results is being aimed at.
8. Follow quality criteria for reliability and validity.

My content analysis process is described in Figure 3. It is iterative in nature: the framework and the results are reflected and refined in a circular manner during the process.

**Figure 3: Content analysis process used in this thesis.**



### **3.2.4 Assessing the quality of content analysis method**

All kinds of research must consider quality criteria for measuring and collecting data, to ensure that the measurements are as reliable and valid as possible (Kohlbacher 2006). Krippendorff (2004, in Kohlbacher 2006) lists six aspects of validity and reliability that the user of content analysis should pay attention to. First, the category definitions, key examples, and the rules for coders to follow should be appropriate. Second, sampling should be done in a precise and meaningful way. Third, correlation with any external criteria (e.g. the results of other similar studies) should be considered. Fourth, previous success with similar constructs should be evaluated. Fifth, the results should be stable, meaning that the same results would be obtained if the analytical tool was applied to the

same material again. This is also referred to as intra-coder reliability, which means that the same coder should get the same result each time he or she analyses the same material. Finally, the results should be able to be reproduced, that is, the analytical tool leads to same results with different coders. This is also called inter-coder reliability. Thus, when planning the research method for my thesis, I must be very careful and objective in order to gain credibility for my method's reliability and validity. For example, while going through the website content I copy all material that warrants a certain grade based on quality-related issues so that in the end of the coding process I can compare text passages across different universities to ensure that they have been evaluated in a consistent manner. In addition, to achieve transparency, specific rules, definitions and prototypical text passages have been determined for each category. They can be found in Appendix I.

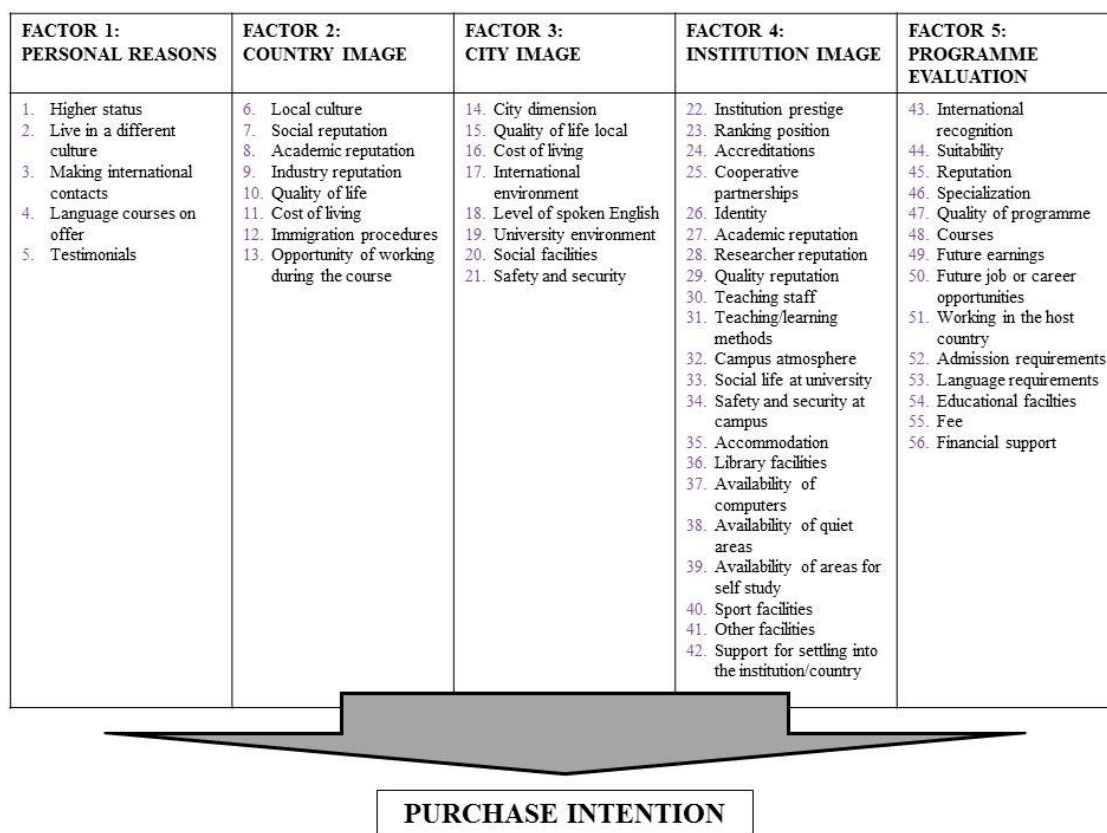
### *3.3 Instrumentation*

In this section, I will go through how the coding scheme and categories for content analysis was formed, report the changes made after test coding, and explain the data collection and evaluation (grading) system used.

#### **3.3.1 Coding scheme**

The starting point for the coding scheme was the model by Cubillo et al. (2006) presented in the literature review of this thesis. To build a more comprehensive framework, their model was complemented with the thoughts of other authors who have studied the subject. The coding scheme used in the empirical part of this thesis is presented in Figure 4. The picture is the same as in the framework chapter 2.3, as the framework is used as the coding scheme. It is presented here again as a reminder to the reader.

**Figure 4: International student decision-making variables framework.**



The coding scheme consists of five factors that are expected to affect the prospective student’s purchase intention. They consist of altogether 56 categories (two of which have two subcategories that determine the grade for their “parent” category). This framework was first tested by coding one of the universities, after which the scheme was refined, deleting some unfeasible items and adding some emergent ones (more information about test coding in section 3.3.4). The complete coding scheme with category definitions, prototypical text passages, coding rules, and authors that have suggested each item, can be found in the Appendices.

The first factor, **Personal reasons**, consists of five categories: 1) higher status related to studying abroad, 2) benefits of living in a different culture, 3) making international contacts (which is the average of two subcategories: “social events for international students”, and “student clubs and associations”), 4) language courses on offer, and 5) testimonials.

The second factor, **Country image**, consists of eight categories: 1) local culture, 2) national quality of life, 3) national cost of living, 4) national social reputation, 5) national academic reputation, 6) national industry reputation, 7) legal opportunity of working during the course, and 8) immigration procedures.

The third factor, **City image**, which also refers to the region where the university is located, consists of eight categories: 1) city dimension, 2) local quality of life, 3) local cost of living, 4) international environment, 5) level of English spoken, 6) university environment, 7) social facilities in the city, and 8) safety and security in the city.

The fourth factor, **Institution image**, consists of 21 categories: 1) institution prestige, 2) ranking position, 3) accreditations, 4) cooperative partnerships, 5) identity, 6) academic reputation, 7) researcher reputation, 8) quality reputation, 9) teaching staff, 10) teaching/learning methods, 11) campus atmosphere, 12) social life at campus, 13) safety and security at campus, 14) accommodation, 15) library facilities, 16) availability of computers, 17) availability of quiet areas, 18) availability of areas for self-study, 19) sport facilities, 20) other facilities, and 21) support for settling into the institution/country.

The fifth factor, **Programme evaluation**, consists of 14 categories: 1) programme suitability, 2) programme reputation, 3) programme specialization, 4) quality of programmes, 5) courses, 6) expected future earnings, 7) future job or career opportunities, 8) working in the host country, 9) international recognition of the degree, 10) admission requirements, 11) language requirements, 12) educational facilities, 13) fees, 14) availability of financial support.

Text passages overlapping categories are allowed – e.g. if it's not clear whether a piece describes the quality of life in the country or in that particular city, it can be included in both.

### 3.3.2 Grading

When using qualitative content analysis data to comparative measurement, it may be useful to give numerical values to data (Festinger and Katz 1966, in Gatfield et al. 1999). Festinger and Katz (1966, in Gatfield et al. 1999) suggest that using serials is the most preferred method for content analysis. Serials “provide a numerical value for categories that may reflect low, medium or high conditions. No assumptions can be made about absolute points and equal intervals cannot be assumed with exactitude” (Gatfield et al. 1999, 75).

Gatfield et al. (1999) used a scale ranging from 0 to 2, based on the amount of text presented in relation to a give subject. I do not find the difference between their grade 1 and 2 meaningful enough, so I have compiled them to by grade 1. Their grade 3 is essentially the same as my grade 2.

My scale evaluates both the amount and the persuasiveness of content on a scale from 0 to 3. I have added an extra dimension with my grade 3: in addition to the amount of text, my grading scale also aims to address the quality of the text in terms of emphasis: which items are used to underline the university’s strengths and uniqueness. Many authors (e.g. Ivy 2001, in Cubillo et al 2006, Välimaa 2004) state that the key for educational institutions to maintain a competitive advantage against international competitors is to develop a distinctive image and positioning – to stand out. In Table 3, the grading system of Gatfield et al. (1999) is compared to mine.

Programme-specific content is evaluated separately, used to grade the categories under factor Programme evaluation. However, sometimes programme-related and institution-related content may overlap each other. In such a case, the following rules are followed:

- a) Content related to the institution’s programmes in general can also be used in grading categories related to factor “Programme evaluation”.
- b) If only programme-specific content is available about any factor, the average grade of all programs will be used (Example: two programmes would get grade

3, while three programmes would get grade 1 for “programme reputation”. Grade for the category will be  $(3+3+1+1+1)/5=1.8$ .

c) If both a & b are valid for a given category, the higher score will be used.

**Table 3: Grading scales compared.**

<b>Gatfield et al. (1999)</b>	<b>This thesis</b>
0 = not mentioned	0 = not mentioned
1 = “item given one word or mentioned in a very short phrase”	1 = item mentioned briefly (max. few sentences), not in a detailed way
2 = item given a sentence	2 = substantial, descriptive information provided about the item
3 = item provided with substantive content such as being mentioned in a number of different places or indicated by a number of illustrative aids such as photographs or graphs	3 = item is emphasized (the topic is framed as a selling point: including adjectives signalling excellence or being top-of-the-class, superlatives, or otherwise emphasized as being very important, e.g. listed as one of the top reasons to choose that university.)

The score of each factor will be the average of the scores of its categories. The total average is calculated directly from each single score give to any item of any university, so it is an average of 448 scores (8 universities times 56 categories) – in order to avoid any weighting. This means that the each factor has an uneven contribution to the total score.

### 3.3.3 Data collection procedures

This section presents the procedures used for collecting the empirical data on website content used in this study. Table 4 list the timeframe and duration of data collection for the case universities. All data collection or coding was conducted manually by the author of this thesis.

**Table 4: Data collection timeframe and duration.**

<b>University</b>	<b>Data collected</b>	<b>Duration</b>
Aarhus University	13.-17.7.2012	5 hours



Technical University of Denmark	13.-14.4.2012	6 hours
Aalto University	20.-22.4.2012	7.5 hours
Tampere University of Technology	10.-11.7.2012	9.5 hours
Chalmers University of Technology	29.-30.3.2012	9.5 hours
KTH Royal Institute of Technology	27.4.-4.5.2012	9 hours
Norwegian University of Science and Technology	12.-13.7.2012	7 hours
Stavanger University	Test coding 23.2.2012, recoding 19.7.2012	Test coding 6 hours, recoding 3 hours.

*Timeframe of data collection:* 23 February 2012 to 18 July 2012. Some of the websites were analysed when the application period was still ongoing, some after it had ended in spring and summer. Therefore, there may be differences in emphasis in the websites' dynamic content. On the other hand, many pages had not been updated in years, so not all website content is very dynamic. In addition, students may visit the website any time of the year and they expect to find the information they need outside application times as well.

*Duration of data collection per website:* The duration ranged from 3 hours to 9.5 hours per university, being 7.25 hours on average (for Stavanger University, an average of the test coding and recoding round durations was used). The speed of coding did not seem to accelerate much with experience, but depended mostly on the differences in the amount of content on each university's website (and, to some extent, on the coder's alertness level). However, when it comes to recoding a website coded before (the case of Stavanger University which was used for testing the coding scheme), the duration of coding in the second round was much shorter due to the familiarity of the content. The large difference in duration between the test coding and recoding can be attributed to the author being unfamiliar with the coding method during the test coding, while the author had to put extra effort to analysing the development areas of the coding scheme.

### **3.3.4 Test coding**

The coding scheme was first tested by coding the website of Stavanger University. The author then self-evaluated the coding categories and the methods used, and refined the coding scheme by modifying and deleting categories, and by adding some emergent ones. Then the universities were coded one-by-one over a five-month time period. At the end of the coding process, the test university (Stavanger) was recoded and the original results were compared to the new ones, in order to assess intrarater reliability. The recoded results were deemed the final ones.

While coding, text passages about each category were copied and pasted to a word-file. Therefore, it was feasible in the end to double- and cross-check the grades category by category and for each university to avoid mistakes and to ensure that grading has been done in a systematic and consistent manner. The grades were also noted on an Excel sheet to allow calculations.

Any changes to the framework and decisions made during the test coding are reported in Appendix II.

### **3.3.5 Intrarater reliability**

To evaluate the intrarater reliability, or the consistency of coding per coder, I first test-coded the website of Stavanger university and recoded it again after going through all the other university websites, after which the two different sets of results were compared. The results of this exercise were:

- 11 categories out of 56 were coded differently in the second rote, suggesting 80.36 % consistency
- The accumulated grade score was 102.8 during the first round and 121 during the second round, thus the difference was 18.2 points. This suggests 82.3% consistency.

- The category average was 1.746428571 during the first round and 1.964285714 during the second round. The difference of 0.21785714 points suggests 87.53 % consistency in average result.

It must be noted that as several months had passed between test-coding and recoding, some of the dynamic website content had changed between coding rounds. At least 3 points of the difference between results of first and second round was caused by a text passage that had been added on the website after the completion of the first round.

Since this thesis is an independent piece of work, it was not feasible to use outsiders as extra coders. However, to gain more reliable and consistent results and to lessen the effect of interpretative differences, it is recommended that two coders would be used for this kind of content analysis process in general. Triangulation, by having two coders evaluate the same set of data and then cross-compare their results, could enhance the quality of the analysis.

When doing the manual coding, it is challenging to remain alert during the coding session, if coding a single website takes several hours – therefore, if the alertness level of the coder sinks too low, it is easy to miss some points that might affect the results. However, the prospective student browsing the website might not study each page that carefully either, instead he or she might scan the page for keywords on topics that he or she finds the most important. Thus, there is no guarantee that any prospective student visiting the website would actually read all materials that the university would like them to consider.

## 4 FINDINGS

In this section, I will present the results of my study and discuss the findings in light of previous literature and my contribution to it. In the empirical part of this thesis, my framework of 56 issues, which have been identified in the literature as relevant to international student decision-making, was tested on a sample of altogether eight universities in Denmark, Finland, Norway and Sweden. The purpose of this exercise was to determine whether these universities had provided website content about these particular issues, and how informative (in terms of quantity) and persuasive (quality in terms of emphasizing the university's strengths) that content was. All in all, the aim is to learn more about how universities can use their website content in order to facilitate international student decision-making.

In chapter 4.1, I will present the main results of each case university in terms of the five factors. In chapter 4.2, I will look at the overall results of each factor. Chapter 4.3 digs deeper, going through the results of each of the 56 categories, factor by factor. Chapter 4.4 explains how results differed within this group of universities: what share of results was of each grade, in which categories results varied from 0 to 3, and in which categories either unique strengths or weaknesses existed. In chapter 4.5 the results are discussed in reflection of previous literature. In the final chapter 4.6, notes on the research method in terms of evaluation of the instrument and the use of time in information search are presented.

University by university, each of the 56 categories were provided with a final score of either 0, 1, 2 or 3 (or a fraction of those in case of programme-specific information), which was recorded on code sheets. The category scores for each university were summated and averaged for each factor. Each university also received a total score. The average score for each category and each factor were also calculated. There were multiple programmes in the university. I am not going to discuss the results of single programmes separately. Instead, average scores of the evaluated programmes per institution were recorded.

Each prospective student has personal priorities based on which they, either consciously or unconsciously, set weights on the different decision-making variables. However, even though a few authors (e.g. Bourke 2000, Baldwin and James 2000, Padlee et al. 2010, Moogan 2011, Mpinganjira 2009) have addressed the relative importance of the international student decision-making attributes, no comprehensive model has been offered yet that would assign quantified measures of these differences in importance. Without such information it is not possible to assign numerical importance weights to the 56 issues in my framework. Instead, all categories are treated as equal for the purposes of this study. Therefore, it is more meaningful to look at the average scores of individual factors and categories in order to locate the strengths and weaknesses in current communications, rather than it would be to examine the total average (to which the five factors contribute in an unequal manner because each factor consists of a different number of categories).

The numerical result data should only be interpreted with caution. There intermediate distances between different grades are not exact. In terms of interpretation, I follow the guidelines by Gatfield et al. (1999) who did a similar study, suggesting that it can only be assumed that the higher scores signal a deeper communication meaning for that item than a lower score would. Whether the prospective student finds these communications meaningful enough to let them influence his or her personal decision is another issue – this thesis is not attempting to prove a causal relationship here.

When applicable, I compare by results with those in the study by Gatfield et al. (1999) that has been referred to throughout this study, as they did a similar content analysis of printed prospectuses of Australian universities. Altogether seven meaningful comparisons could be made – they will all be addressed in the following sections. Even though the medium or marketing channel they studied was different, the function that prospectuses serve is the same as that of university websites' marketing content: informing and convincing the prospective student.

It must be considered carefully what the different scores mean. Getting a 0 doesn't mean that particular attribute is not covered in the university at all, it just means that

they had not considered mentioning it on the website – an example could be ‘safety & security’, which might not be mentioned because it could be taken for granted in the Nordic countries. For some less important topics a 1 (mentioned briefly) might be enough. Score 2 means that topic has been discussed thoroughly. However, only the highest score 3 means that topic has been emphasized as something highly important in making the university stand out.

The institutions might have a most lively and charming campus, but in terms of this study, it does not contribute to the results if they have not articulated it on their website. The question is not how well a university is doing in these categories, but how well it has communicated about them.

#### 4.1 University results

Table 5 lists the scores that the universities got for each factor.

**Table 5: University scores.**

COUNTRY	UNIVERSITY	TOTAL	PERSONAL	COUNTRY	CITY	INSTITUTION	PROGRAMME
Denmark	Aarhus	1.85	1.50	1.63	2.25	1.93	1.74
Denmark	DTU	2.19	1.60	1.75	2.25	2.29	2.47
Finland	Aalto	2.40	2.24	2.75	2.88	2.29	2.16
Finland	TUT	2.43	2.00	2.50	3.00	2.36	2.34
Norway	NTNU	2.14	1.22	1.75	2.63	2.48	1.91
Norway	Stavanger	2.00	1.40	2.13	2.38	2.05	1.84
Sweden	Chalmers	2.27	2.40	2.00	2.50	2.43	2.00
Sweden	KTH	2.61	2.70	2.75	3.00	2.29	2.77

Overall, in the results there was variation between different universities’ scores. Aarhus University was the only institution in this sample that ended up with an average below 2. This suggests that on average they provided insufficient information about these topics. University of Stavanger’s average score was 2, which suggests that, on average, they provided sufficient information without any special emphasis. However, looking at their factors scores reveals that there were indeed differences between them.

The remaining six universities all had an average score over 2, suggesting that they had succeeded in providing sufficient and somewhat emphasized information about these subjects. Royal Institute of Technology KTH and Tampere University of Technology got a full score 3 for the host city image factor.

These institutions are all located in countries with similar profiles – if all of them communicated equally well, they would be able to attain similar scores in country image. The sample included two universities from each country. Interestingly, for the factor host country image, the difference in score between the two universities in each country was very small: 0.38 points for the Norwegian universities, 0.12 in Denmark, and 0.25 in Finland. The difference in Sweden was slightly larger at 0.75 points. The same goes for personal reasons as well: the difference was 0.10 in Denmark, 0.24 in Finland, 0.18 in Norway and 0.30 in Sweden. In terms of personal reasons, both of the universities in each country were on the same side of the grade 2 divide.

While Gatfield et al. (1999) discovered clear disparity between prospectuses of different universities in terms of how much content they had on issues important to prospective students, in my study the results of these eight universities were not that wide apart – although variation still existed.

The selected eight universities are the leaders in their field in their country – and they compete with each other for project funding and talented staff and students in the Nordic realm. They are also highly networked with each other: for example, five of them form an exclusive NordicFiveTech partnership where they e.g. offer jointly provided Master's programmes.

## 4.2 Factors compared to each other

Table 6 lists the factor scores per university.

**Table 6: Factor scores.**

		Den- mark	Den- mark	Fin- land	Fin- land	Nor- way	Norway	Sweden	Swe- den
	AVER- AGE	<i>Aarhus</i>	<i>DTU</i>	<i>Aalto</i>	<i>TUT</i>	<i>NTNU</i>	<i>Stavanger</i>	<i>Chalmers</i>	<i>KTH</i>
AVER- AGE	2.24	1.85	2.19	2.40	2.43	2.14	2.00	2.27	2.61
<b>Per- sonal</b>	1.88	1.50	1.60	2.24	2	1.22	1.40	2.40	2.70
<b>Coun- try</b>	2.16	1.63	1.75	2.75	2.50	1.75	2.13	2	2.75
<b>City</b>	2.61	2.25	2.25	2.88	3	2.63	2.38	2.50	3
<b>Insti- tution</b>	2.26	1.93	2.29	2.29	2.36	2.48	2.05	2.43	2.29
<b>Pro- gramme</b>	2.16	1.74	2.47	2.16	2.34	1.91	1.84	2	2.77

On average, issues related to country, city, institution, and programme were discussed sufficiently and emphasized to some extent. Host city/region received the highest score of 2.61 suggesting strong emphasis. Institution (at 2.26) scored very close to country and programme (both at 2.16). In contrast, the personal reasons factor was on average not discussed sufficiently, as its average score was less than 2.

In their study, Gatfield et al. (1999) detected a wide disparity between the different factors. All of their factor indices were substantially lower than their potential value 3, which corresponds to score 2 in my study. In contrast, in my study four out of five factors had a score above 2 – therefore, my results were significantly more positive than theirs. However, it must be noted that because my grading scale extended further than theirs by adding another dimension of emphasizing strengths, it was easier in my scale to get an average of 2: this is because even if some of the categories in any factor scored less than 2, this could be compensated in the average score by another category scoring 3.



The average score was 2.24, suggesting that these eight universities in general had covered the issues important to prospective students and emphasized their strengths in them. The total average is calculated directly from each single score given to any item of any university, so it is an average of 448 scores – in order to avoid any weighting. That means each factor has an uneven contribution to the total score: for example, item ‘Institution image’ consists of 21 categories, contributing 37.5 % of the total score, while ‘Personal reasons’ includes only five categories, contributing 8.9 % of the total score. In contrast, each one of the 56 categories contributes to the total score evenly. As in reality the different categories would not be of equal value to the prospective student, the total average score can only be an artificial measurement of the website content.

In their study, Gatfield et al (1999) concluded that there was a substantial communication gap between what issues students perceive to be important and what those people who had compiled the prospectuses had understood to be important. This was valid for most of their factor indices and for the majority of the Australian universities they studied. In my study, I can conclude that in this sample of universities, the communication gap was much smaller and that on average, the universities had understood what issues were important to prospective international degree students, and covered them well.

### *4.3 Category-level results*

In this chapter, the results of different categories are presented one factor at a time.

#### **4.3.1 Personal reasons**

Table 7 lists the scores of each category under factor Personal reasons.

**Table 7: Category scores for factor ‘Personal reasons’.**

Category	AVER-AGE	Aarhus	DTU	Aalto	TUT	Chalmers	KTH	NTNU	Stavanger
AVER-AGE	1.88	1.50	1.60	2.24	2	2.40	2.70	1.22	1.40

Higher status related to studying abroad	1.13	0	0	3	0	3	3	0	0
Benefits of living in a different culture	1.38	0	1	3	1	3	3	0	0
Making international contacts <sup>1</sup>	2.44	2.5	2	3	3	2	2.5	2.5	2
Language courses on offer	2.00	2	2	1	3	1	2	3	2
Testimonials	2.48	3	3	1.2	3	3	3	0.6	3

Out of the eight universities, three had an average score higher than 2 for the factor 'Personal reasons', one institution scored 2, and the remaining half of the universities scored less than 2 but more than 1.

**Higher status related to studying abroad** was ignored in five universities and emphasized in three universities. The average score was 1.13.

**Benefits of living in a different culture** was ignored in three universities, mentioned briefly in two, and emphasized in three universities. The average score was 1.38.

**Making international contacts** was discussed sufficiently in all of the webpages, and somewhat emphasized in five of them. The average score was 2.44.

**Language courses on offer** were discussed in detail by half of the universities, emphasized by two and only briefly mentioned by two. The average score was 2.

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<sup>1</sup> Making international contacts consists of subcategories of equal weight called "Social events for international students" and "Student clubs & associations".

**Testimonials** were used efficiently to emphasize own strengths in six universities. Two universities had only used them a little (for one out of the five programmes). The average score was 2.48.

### 4.3.2 Host country image

Table 8 lists the scores of each category under factor Host country image.

**Table 8: Category scores for factor 'Host country image'.**

Category	AVER- AGE	Aarhus	DTU	Aalto	TUT	Chal- mers	KTH	NTNU	Stavan- ger
<b>AVERAGE</b>	<b>2.16</b>	<b>1.63</b>	<b>1.75</b>	<b>2.75</b>	<b>2.50</b>	<b>2</b>	<b>2.75</b>	<b>1.75</b>	<b>2.13</b>
Local culture	2.50	2	1	3	3	3	3	3	2
Quality of life - national	2.00	3	3	3	3	3	3	3	3
Social reputation	2.38	1	3	3	3	3	3	1	2
Academic reputation - national	1.88	1	2	3	3	3	3	0	0
Industry reputation	2.63	0	3	3	3	3	3	3	3
Cost of living - national	1.88	2	0	3	3	0	2	2	3
Opportunity of working during the course	1.13	2	0	2	0	0	3	0	2
Immigration procedures	1.88	2	2	2	2	1	2	2	2

The average grade for host country related categories was 2.16. Half of the eight case universities scored higher than 2, one score exactly 2, and three had scores from 1.63 to 1.75.

Out of the 8 categories forming this factor, half were discussed sufficiently and emphasized to some extent: local culture, national quality of life, social reputation, industry reputation. However, four of the topics were not allotted sufficient content:

national academic reputation, national cost of living and immigration procedures scored 1.88 on average, while opportunity of working during the course only scored 1.13.

**Local culture** was emphasized in five universities, and explained thoroughly in two universities. One university only mentioned it briefly. The average score was 2.50.

**Quality of life – national** was emphasized by all of the universities, the average score being a round 3.

**Social reputation** was emphasized by five universities, discussed sufficiently by one more, and briefly mentioned by two institutions. The average score was 2.38.

**Academic reputation – national** was emphasized by four universities, and ignored by two. In addition, one university score 1 and another scored 2. The average score was 1.88.

**Industry reputation** was emphasized by seven of the universities, scoring 3, while one university had completely ignored the subject. The average score was 2.63.

**Cost of living – national** was emphasized by three universities, and ignored by two. Additionally, three universities had covered it sufficiently, scoring 2. The average score was 1.88.

**Opportunity of working during the course** was emphasized by only one university, discussed sufficiently by 3 universities (grade 2), and completely ignored by four universities. The average score was 1.13.

**Immigration procedures** were discussed thoroughly by seven universities, while one university had only mentioned it briefly, providing a link to a third-party website with more information. Not including the information on the university's own website was the cause for this low score. The average score was 1.88.

### 4.3.3 Host city image

Table 9 lists the scores of each category under factor Host city image.

**Table 9: Category scores for factor 'Host city image'.**

Category	AVER-AGE	Aarhus	DTU	Aalto	TUT	Chal-mers	KTH	NTNU	Stavan-ger
<b>AVERAGE</b>	<b>2.61</b>	<b>2.25</b>	<b>2.25</b>	<b>2.88</b>	<b>3</b>	<b>2.5</b>	<b>3</b>	<b>2.63</b>	<b>2.38</b>
City dimension	2.75	3	2	3	3	3	3	3	2
Quality of life - local	2.88	3	2	3	3	3	3	3	3
Cost of living - local	2.38	2	3	3	3	1	3	2	2
International environment	2.88	3	2	3	3	3	3	3	3
Level of spoken English	2.25	0	3	2	3	3	3	2	2
University environment	2.00	3	3	3	3	3	3	3	3
Social facilities in the city	2.00	3	3	3	3	3	3	3	3
Safety & security in the city	1.75	1	0	3	3	1	3	2	1

The city where the university is located was discussed sufficiently and emphasized to some extent by all of the universities, all universities scoring higher than 2 and two of them scoring 3 for the factor.

Out of the eight categories, seven had an average score higher than 2 with two categories scoring a full 3 from all universities. One category scored only 1.75.

**City dimension** was emphasized by six universities and discussed sufficiently by the remaining two as well. The average score was 2.75.

**Local quality of life** was emphasized by all of the universities, except for one that scored 2. The average score was 2.88.

**Local cost of living** was covered well by all of the universities, except for one institution that only scored 1 (directing the prospective student to a third-party website), and emphasized by four universities. The average score was 2.38.

**International environment** was emphasized by seven universities, while one institution scored 2. The average score was 2.88.

The results of **Level of spoken English** varied from 0 to 3. Four universities emphasized the topic, while three more provided sufficient information. One university had ignored it. The average score was 2.25.

**University environment** was emphasized by all universities, all of them scoring a 3.

**Social facilities in the city** were emphasized by all universities, all of them scoring a 3.

There was a lot of variance for the scores for **Safety & security in the city**: one university ignored the topic, three mentioned it briefly, and another provided extensive information about it, while three universities had emphasized it. The average score was 1.75.

#### 4.3.4 Institution image

Table 10 lists the scores of each category under factor Institution image.

**Table 10: Category scores for factor ‘Institution image’.**

Category	AVER- AGE	Aar- hus	DTU	Aalto	TUT	Chal- mers	KTH	NTNU	Stavan- ger
<b>AVERAGE</b>	<b>2.26</b>	<b>1.93</b>	<b>2.29</b>	<b>2.29</b>	<b>2.36</b>	<b>2.43</b>	<b>2.29</b>	<b>2.48</b>	<b>2.05</b>
Institution prestige	2.00	3	3	3	3	3	3	3	3
Ranking position	2.25	3	3	3	0	3	3	3	0
Accreditations	0.25	0	0	0	1	1	0	0	0
Cooperative partners	2.00	3	3	3	3	3	3	3	3
Identity	2.13	0	3	3	3	0	3	3	2

Quality reputation	2.25	0	3	3	1	3	3	3	2
Researcher reputation	2.00	3	3	3	3	3	3	3	3
Academic reputation - institution	2.75	1	3	3	3	3	3	3	3
Teaching staff	2.88	3	3	3	2	3	3	3	3
Learning / teaching methods	2.88	3	3	3	3	3	3	3	2
Campus atmosphere	2.88	3	2	3	3	3	3	3	3
Social life at university	2.63	3	1	3	3	3	2	3	3
Safety & security at campus	1.00	0	1	0	3	3	0	0	1
Accommodation	2.88	3	3	3	3	2	3	3	3
Library facilities	2.38	2	1	2	3	2	3	3	3
Availability of computers	1.88	1	3	2	2	3	1	3	0
Availability of quiet areas	0.25	0	0	0	0	1	0	0	1
Availability of self-study areas	1.88	3	3	0	3	3	1	1	1
Sport facilities	2.38	2	2	2	3	1	3	3	3
Other facilities	2.38	2	3	3	2	2	2	3	2
Support for settling into the country & institution <sup>2</sup>	2.63	2.5	2	3	2.5	3	3	3	2

The factor ‘Institution image’ received an average score of 2.26. Seven out of eight universities scored higher than 2, while one of them remained just below it at 1.93.

There was a lot of variance among the results of the 21 categories forming this factor. Three categories had an average of 3, thirteen categories’ scores were less than 3 but more than 2, two categories received score 1.88, one category received score 1, and in two categories the average scores was only 0.25.

<sup>2</sup> Support for settling into the country and institutions consists of two subcategories: ‘International Office support’ and ‘Orientation’

**Institution prestige** was emphasized by all universities in the study, with the average score being 3.

**Ranking position** was emphasized by six universities and ignored by two. The average score was 2.25.

**Accreditations** were ignored by six universities and mentioned by one word by two universities. The average score was 0.25.

**Cooperative partners** were emphasized by all of the universities, the average score thus being 3.

**Identity** was emphasized by five universities, and ignored by two, while one university scored 2. The average score was 2.13.

**Quality reputation** was emphasized by five universities and ignored by one university, while one institution scored 1 and another scored 2. The average score was 2.25.

**Researcher reputation** was emphasized by all universities, the average score being 3.

**Academic reputation – institution** was emphasized by seven universities, while one university only mentioned it briefly. The average score was 2.75.

**Teaching staff** was emphasized by seven universities, while one university scored 2. The average score was 2.88.

**Learning / teaching methods** were emphasized by seven universities, while one university scored 2. The university with score 2 was not the same one as in the case of teaching staff. The average score was 2.88.

**Campus atmosphere** was emphasized by seven universities, while one university scored 2. The average score was 2.88.



**Social life at university** was emphasized by six universities, while one university scored 2 and another scored 1. The average score was 2.63.

**Safety & security at campus** was emphasized by two universities and ignored by four, while two institutions mentioned it briefly. The average score was 1.

**Accommodation** was emphasized by seven universities, while one university scored 2. The average score was 2.88.

**Library facilities** were emphasized by half of the universities, and mentioned briefly by one, while three institutions scored 2. The average score was 2.38.

**Availability of computers** was emphasized by three universities, mentioned by two, and ignored by one, while two institutions scored 2. The average score was 1.88.

**Availability of quiet areas** was ignored by six institutions while two mentioned it briefly. The average score was 0.25.

**Availability of self-study areas** was emphasized by half of the universities, mentioned by three, and ignored by one. The average score was 1.88.

**Sport facilities** were emphasized by half of the universities, and mentioned briefly by one, while three universities scored 2. The average score was 2.38.

**Other facilities** were emphasized by three universities, while the remaining five scored 2. The average score was 2.38.

**Support for settling into the country & institution** was discussed sufficiently by all of the universities, and emphasized to some extent by six of them. The average score was 2.63.

### 4.3.5 Programme evaluation

Table 11 lists the scores of each category under factor Programme evaluation.

**Table 11: Category scores for factor ‘Programme evaluation’.**

Category	AVE R- AGE	Aarhus	DTU	Aalto	TUT	Chal- mers	KTH	NTNU	Stavan- ger
<b>AVERAG E</b>	<b>2.16</b>	<b>1.74</b>	<b>2.47</b>	<b>2.16</b>	<b>2.34</b>	<b>2.00</b>	<b>2.77</b>	<b>1.91</b>	<b>1.84</b>
Programme suitability	2.10	1.4	3	3	1.8	2.4	3	1.8	0.4
Programme reputation	1.45	0	3	1	0.6	1.6	3	0	2.4
Programme specializati on	2.33	2.2	3	3	2.4	1.8	1.8	1.8	2.6
Quality of programme s	2.50	0,6	3	3	3	3	3	2	2.4
Courses	2.38	2	3	2	3	2	3	2	2
Expected future earnings	0.50	0	0	0	0	1	3	0	0
Future job or career oppor- tunities	2.88	2.8	3	3	3	3	3	2.6	2.6
Working in the host country	2.35	3	2	2	3	3	3	1.8	1
Internation al recognition of degree	1.95	2.4	3	1	3	1	3	0.8	1.4
Admission requiremen ts	2.70	2	2.6	3	3	2	3	3	3
Language requiremen ts	2.25	2	2	3	3	2	2	2	2
Educational facilities	2.05	1	3	1.2	3	1.2	3	3	1
Fee	2.25	2	2	2	3	2	2	3	2
Availability of financial support	2.50	3	2	3	1	2	3	3	3

The factor 'Programme evaluation' received an average score of 2.16. Six out of eight universities scored higher than 2, one scored 2, and one scored 1.74.

Among the 14 categories the form this factor, eleven had average scores higher than 2, two scored less than 2 but more than 1, and one category had an average of only 0.50.

**Programme suitability** was emphasized to some extent by half of the universities. Three universities had scores that ranged from 1.4 to 1.8, suggesting that sufficient information was offered for some but not all of the programmes. One university only scored 0.4, suggesting that programme suitability was ignored by most of their programmes. The average score was 2.10.

**Programme reputation** was emphasized to some extent by three universities, mostly ignored by three universities (scoring 0 to 0.6). One university had a score of 1, suggesting that on average they have mentioned the programme reputation. One university scored 1.6, suggesting that they had offered sufficient information on some but not all of the programmes studied. The average score was 1.45.

**Programme specialization** was emphasized to some extent by five institutions (some of them managed to emphasize this issue with all of the programmes, some have lower scores such as 2.2 suggesting that possibly this was emphasized only in terms of one programme, while other programmes were just covered sufficiently). The remaining three programmes all scored 1.8, suggesting that they had covered most but not all programmes sufficiently. The average score was 2.33.

**Quality of programmes** was fully emphasized by five universities and somewhat emphasized by one. One institution scored 2. One university only scored 0.6, having mostly ignored the issue. The average score was 2.50.

**Courses** were emphasized by three institutions, while the other five scored 2. The average score was 2.38.

**Expected future earnings** were emphasized by one university, mentioned by another, and ignored by six universities. The average score was 0.50.

**Future job or career opportunities** were fully emphasized by five institutions (score 3) and mostly emphasized by the remaining three as well (scoring 2.6 to 2.8). The average score was 2.88.

**Working in the host country** was emphasized by half of the institutions. Two institutions scored 2, one scored 1.8, and the last one had briefly mentioned it. The average score was 2.35.

**International recognition of degree** was fully emphasized by three institutions, somewhat emphasized by one, and only briefly mentioned by two. One institution scored 1.4, suggesting that some but not all programmes were discussed sufficiently. One institution scored merely 0.8, suggesting that at least one programme had ignored this category. The average score was 1.95.

**Admission requirements** were fully emphasized by five institutions, underlining their selectivity, and somewhat emphasized by one institution. The remaining two institutions had also provided sufficient information on the topic. The average score was 2.70.

**Language requirements** were emphasized by two institutions, while the other six institutions scored 2. The average score was 2.25.

**Educational facilities** were an interesting case in that they were emphasized by half of the universities, whereas the other half had mostly only mentioned them briefly (scoring 1 to 1.2). The average score was 2.05.

**Fee related issues** were emphasized by two institutions, and discussed sufficiently by the other six institutions. The average score was 2.25.

**Availability of financial support** was emphasized by five institutions, discussed sufficiently by two, and only briefly mentioned by one. The average score was 2.50.

#### 4.4 Differences in results

In this section, those results where there were differences between the different universities are discussed. The purpose is to find out what inferences can be made of the differences between the case universities. First, I looked how the scores were distributed between different grades. Second, I will list the categories where results of different institutions varied on a full scale from 0 to 3. Third, I will present the few unique strengths that some universities had. Fourth, I will look at the several unique weaknesses that there were in terms of several topics.

##### 4.4.1 Distribution of scores

Table 12 explains the shares of each grade.

**Table 12: Distribution of scores.**

		%
grade 3	249	55.58036
grade 2	81	18.08036
grade 1	37	8.258929
grade 0	50	11.16071
not whole numbers	31	6.919643
$\Sigma$	448	100

55.58 % of the scores were a round 3. Half of the topics have been emphasized.

By adding scores 2 and 3 together, one finds that in 73.66 % of the cases an item was at least discussed sufficiently on a university website, suggesting that the university had understood that this is an important issue to the prospective student.

In 19.42 % (0 + 1 grades) of the cases an item was not discussed sufficiently on a university website, where the prospective student possibly did not receive enough information to make an informed decision.

In Gatfield et al.'s (1999) study, each institution received on average 10 zeros per the 25 items, corresponding to 40 % of the grades. In contrast, in my study only 11.16 % of the scores (or 50 out of 448) were zeros. Therefore, it was much less common for my sample of universities to ignore an item than it was for the Australian universities in Gatfield et al.'s (ibid.) study.

As some of the scores were averages of scores of the 5 programmes in each university, some of the category scores were not whole numbers. Therefore fractions such as “2.48” could not be included in this section – forming 6.92 % of all category scores.

#### **4.4.2 Categories with high variance**

For 16/56, or 28.57 % of the categories, the results of different universities varied on a full scale from 0 to 3. This suggests that while some universities did not recognize the importance of some of these issues, some other universities found them worthy of being emphasized.

The categories with *highly variable results* were Higher status related to studying abroad, Benefits of living in a different culture, Academic reputation – national, Industry reputation, Cost of living – national, Opportunity of working during the course, Level of spoken English, Safety & security in the city, Ranking position, Identity, Quality reputation, Safety & security at campus, Availability of computers, Availability of self-study areas, Programme reputation, Expected future earnings

There were great differences in how universities had covered some of these topics. For example, Higher status related to studying abroad was ignored in 5/8 universities, briefly mentioned in one, and emphasized in two institutions. Possibly some universities did not feel the need to convince the applicant about why it would be beneficial to study

abroad in the first place, if the prospective students have already taken the step to look for potential institutions. The same explanation could be offered for the item Benefits of living in a different culture, which was ignored in half of the universities, mentioned briefly in one, and emphasized in three universities. The benefits and status also relate to which country the prospective student originates from: there is a difference between moving to Sweden from Germany or from Gambia, e.g. in terms of the cultural distance and difference in level of development.

#### **4.4.3 Unique strengths**

It could be argued that in those issues where a group of universities is different from one another lies the opportunity for competitive advantages and standing out. However, communicating one's uniqueness might be difficult. In this matrix of eight universities and 56 issues, there were only two instances where only one university received a score higher than 2. In item Opportunity of working during the course, Aalto University scored 3, while others had scores from 0 to 2. In item Expected future earnings, Royal Institute of Technology KTH score 3, while others had scores 0 or 1.

#### **4.4.4 Unique weaknesses**

Whereas it seemed to be difficult to stand out in a positive way among these eight universities, it was much more common to stand out negatively.

There were 9 categories where all of the other universities scored 2-3, except for one that scored less than 2.

- Local culture (DTU 1, others 2-3)
- Industry reputation (Aarhus 0, others 3)
- Level of spoken English (Aarhus 0, others 2-3)
- Academic reputation – institution (Aarhus 1, others 3)
- Social life at university (DTU 1, others 2-3)
- Library facilities (DTU 1, others 2-3)

- Sports facilities (Chalmers 1, others 2-3)
- Quality of programmes (Aarhus 0.6, others 2-3)
- Availability of financial support (TUT 1, others 2-3)

In addition, there were 9 topics where either only one university failed to emphasize an item, or where there were two universities with low scores while everybody else emphasized the item

- Testimonials (Aalto 1.2 and NTNU 0.6, others 3)
- Quality of life – local (DTU 2, others 3)
- International environment (Aarhus 2, others 3)
- Ranking position (TUT and Stavanger 0, others 3)
- Identity (Aarhus and Chalmers 0, others 2-3)
- Teaching staff (TUT 2, others 3)
- Learning/teaching methods (Stavanger 2, others 3)
- Campus atmosphere (DTU 2, others 3)
- Accommodation (Chalmers 2, others 3)

As these issues are important to the prospective student, failing to articulate strengths in them or to at least provide sufficient information could lead to the prospective student dropping that institution from his or her choice set. In order to avoid being distinguished negatively, this sort of occasions would be the first where universities would reconsider their website content.

#### *4.5 Reflecting results and literature*

In this section, I will reflect the findings of this study with what has been said about international student decision-making in previous literature. First, I will review my results in the light of topics that have been identified in the literature as prospective students' top priorities, or the most relevant decision-making influences. Second, based on my results, I will explain what topics my eight case universities seemed to find the



most important in terms of what they had emphasized the most. Third, I will discuss topics that were frequently ignored by the case universities or covered to a lesser extent.

#### **4.5.1 How well were students' top priorities covered?**

As noted in the literature review, the relative importance from the student's point of view was not that clear for all of the factors. However, some authors had approached the subject and listed some priorities that students had. These are the areas where students need the most information and that have the most influence on their purchase intention.

In order of importance, Bourke's (2000) list is topped by educational quality of course, followed by the recognition of the degree overseas, availability of courses at the third place, learning and teaching styles in the fourth place, costs at the fifth, entry requirements at the sixth, and finally status given to the university in the applicant's home country in the seventh place. Baldwin and James (2000) claim that explanations of teaching and learning approaches within each programme would be the most useful information universities can give, in order for student to determine if a particular course is right for them. In Padlee et al.'s (2010) study, the most important attributes were admission requirements, specialization, academic staff, computer facilities, career advising, immigration issues, facilities for practising religion, and internet facilities. Moogan's (2011) top three most important issues were teaching quality, course content, and reputation of the institution. Also Mpinganjira (2009) has set some priorities to which factors prospective student consider more important than others; with career related issues being the most important, and e.g. language improvement being less important.

Out of the issues listed by the above mentioned authors to be top priorities, these categories received good scores:

- institution prestige (3)
- researcher reputation (3)
- learning and teaching methods (2.88)
- teaching staff (2.88)

- future job or career opportunities (2.88)
- campus atmosphere (2.88)
- academic reputation of the institution (2.75)
- admission requirements (2.70)
- social life at university campus (2.63)
- quality of programmes (2.50)
- making international contacts (2.44)
- courses (2.38)
- working in the host country (2.35)
- programme specialization (2.33)
- fee (2.25), with closely related topic of financial support being (2.50)
- quality reputation of the institution (2.25)
- ranking position (2.25)
- programme suitability (2.10), Cubillo et al. (2006) also referred to the overall score for the Programme evaluation factor (2.16)

Many of these top priority issues seem to be well covered by these eight institutions. However, the scores could be even better as standing out in regard to these topics is of utmost importance.

Out of the issues listed by the above mentioned authors to be top priorities, these categories received less than satisfactory scores:

- international recognition of the degree (1.95)
- computer facilities (1.88)
- status related to studying abroad (1.13)
- expected future earnings (0.50)

Prospective international degree students' information needs were not fully served with the content of these university websites. As these topics were deemed as priorities by previous authors, universities might want to consider paying closer attention to communicating about them. For example, expected future earnings might have been ignored by five out of eight institutions because it is not typical for the Nordic culture to

discuss one’s salary level openly. Many universities surely have information about fresh graduate starting salaries, however, so they could consider revealing them in their international marketing communications, as this is a topic that matters to their target group.

#### 4.5.2 What did universities find the most important

Except for the few emergent categories, all of the 56 issues included in the framework have been mentioned in the literature to be important to students. The average score of all categories was 2.24. This is a very good result, suggesting that, on average, these case universities had provided sufficient information about these issues and emphasized their strengths in areas that matter to the students.

Figure 5 lists the categories that received the highest average scores. Out of the 56 categories involved in the framework, 40 received an average score that was more than 2. That is, on average 71.43 % of the issues important to the prospective students were discussed sufficiently and at least with some emphasis. This would suggest that to some extent, universities have recognized the majority of issues that matter to prospective students and have made the effort to address these topics on their website.

**Figure 5: Categories with the highest average scores.**

1. University environment	3.00	21. Local culture	2.50
2. Cooperative partners	3.00	22. Quality of programmes	2.50
3. Researcher reputation	3.00	23. Testimonials	2.48
4. Quality of life - national	3.00	24. Making international contacts	2.44
5. Social facilities in the city	3.00	25. Library facilities	2.38
6. Institution prestige	3.00	26. Sport facilities	2.38
7. Quality of life - local	2.88	27. Other facilities	2.38
8. International environment	2.88	28. Social reputation	2.38
9. Teaching staff	2.88	29. Courses	2.38
10. Learning/teaching methods	2.88	30. Cost of living - local	2.38
11. Campus atmosphere	2.88	31. Working in the host country	2.35
12. Accommodation	2.88	32. Programme specialization	2.33
13. Future job or career opportunities	2.88	33. Ranking position	2.25
14. City dimension	2.75	34. Quality reputation	2.25
15. Academic reputation - institution	2.75	35. Fee	2.25
16. Admission requirements	2.70	36. Level of spoken English	2.25
17. Social life at university	2.63	37. Language requirements	2.25
18. Support for settling into the country & institution	2.63	38. Identity	2.13
19. Industry reputation	2.63	39. Programme suitability	2.10
20. Availability of financial support	2.50	40. Educational facilities	2.05

When it comes to stronger positive emphasis, in 22 categories (39.29 % of all categories) the average score was 2.5 or more, suggesting that these items were emphasized by at least half of the universities, or more. However, an average score so high also suggest another thing: that many of the universities have focused on same issues in their website content. This raises a question about how convincing the universities' claims are in terms of persuading the student that each university is their best option in terms of these issues.

In my case study, all eight universities received a score 3 for six topics: university environment, cooperative partner network, researcher reputation, national quality of life, social facilities in the city, and institution prestige – portraying these areas as their strengths. However, a strength shared by all parties may not be strength anymore, because it does not make any of the universities stand out from each other. A shared strength cannot be a competitive advantage. Still, I am not advocating for these universities to ignore these strengths – even though these 8 universities share these strengths, my results are not generalizable so they do not suggest that the other institutions in these Nordic countries, let alone other competing institutions in other parts of the world, would also be strong in these particular areas. In other words, even though these strengths might not make these institutions stand out from their peers, they might have an advantage against some other competitors.

In the study by Gatfield et al. (1999), in only 35 per cent of occasions a university got a grade 3 (which is comparable with the grade 2 in my grading scale). As in my study in 73.66 % of the occasions resulted in grade 2 or better, it can be said that my results were over twice as positive as theirs. Many different speculations can be offered that could explain this difference: first of all, their study used a different set of categories. Second, they studied printed prospectuses, which are more limited in terms of space and not as easily updated as websites. Third, their study was done in Australia, while my study consisted of Nordic universities. Finally, over a decade has passed since they conducted their study - universities may have learnt to understand and respond to the information needs of international degree student better.

In 55.58 % of the occasions in my study, a university received a score 3 for an item. This suggests that these universities have emphasized over half of the issues. This leads me to wonder whether they have emphasized too many things – like in a book where every second sentence is underlined. On one hand, if an institution is excellent in many different things, it wants to bring it across in its marketing communications – and it does not want its competitors to take the spotlight regarding these issues, if it is equally good or better as them. On the other hand, underlining a wide variety of things might have its downsides: First, it is unlikely that a student considering many different universities will be able to remember 30 good things about each of them – instead, the prospective student might receive a positive but blurry image of each option. Second, not focusing on a shorter list of important statements might be a signal of lack of clarity in terms of the university's positioning: the institution is maybe not yet able to express briefly what they stand for and what makes them special. The third risk is about credibility: if an institution goes on raving about how everything they offer is top-notch and unique, their statements risk sounding vague and too marketing-oriented, where a consumer aware of commercial messages might find the university's statements difficult to believe. If the institution cannot back it statements up with real excellence in their service offering, this might pose a risk to their student satisfaction and reputation.

Apart from those categories deemed the most important to students, also these received special attention from my case universities: University environment (3.00), Cooperative partners (3.00), Quality of life – national (3.00), Social facilities in the city (3.00), Quality of life – local (2.88), International environment (2.88), Accommodation (2.88), City dimension (2.75), Support for settling into the country & institution (2.63), National industry reputation (2.63), Local culture (2.50), Testimonials (2.48), Library facilities (2.38), Sport facilities (2.38), Other facilities (2.38), Social reputation (2.38), Cost of living – local (2.38), Level of spoken English (2.25), Language requirements (2.25), Identity (2.13), Educational facilities (2.05).

In the study by Gatfield et al. (1999), the only broad topic that had received reasonable attention was campus life. In their study, this factor consisted of natural and physical environment, personal safety on campus, public transport, health services, food services,

social cultural activities, campus housing, and sports and recreation facilities. In my framework, such items are included in the factor “institution image”. These items were also well covered by the case universities of this thesis, scores ranging from 3.00 for university environment to 2.38 for sports and other facilities. However, their item “personal safety on campus” only scored 1.00 in my study (safety & security at campus). This study has no definite answer why this item was considered important by Australian universities but not by these Nordic universities, but it could be a question of culture.

Noteworthy is that all host country and host city related categories were on this list, even though previous literature didn’t mention them on the list of the students’ top priorities. However, many authors studying the decision-making factors of students focused on institution and programme related issues. The Nordic countries and their major cities might not be so well-known around the world as the UK, Australia and the United States are as countries or London, Sydney or New York as cities – therefore, it makes sense for the institutions to inform the prospective student about the location where the higher education service is provided, as the student is less likely to be familiar with them.

These eight universities were also eager to emphasize many facility-related issues, even though these were not deemed as particularly important in the literature. Hesketh and Knight (1999), however, point out that educational facilities might be more important for natural science students as they affect the quality of work that can be done in this discipline. The findings of this study suggest that this may also be true in the field of technology and engineering, especially in programmes where e.g. laboratory work is part of the studies.

#### **4.5.3 Topics to which universities paid less attention**

In spite of the 56 items in my framework being identified in the literature as important to the prospective student decision-making, not all of them were well-covered in the university websites.

15 out of 56 categories, that is, 26.79 % of the items received an average score that was less than 2, suggesting that overall, these universities had not paid sufficient attention to them. For 3 items (5.36 % of all categories), namely accreditations, availability of quiet areas, and for expected future earnings, the average score was less than 1, suggesting that they had been mostly ignored. Figure 6 lists the categories with the lowest average scores.

**Figure 6: Categories with the lowest average scores.**

1. Accreditations	0.25	8. Programme reputation	1.45
2. Availability of quiet areas	0.25	9. Safety & security in the city	1.75
3. Expected future earnings	0.50	10. Availability of self-study areas	1.88
4. Safety & security at campus	1.00	11. Availability of computers	1.88
5. Higher status related to studying abroad	1.13	12. Academic reputation - national	1.88
6. Opportunity of working during the course	1.13	13. Cost of living - national	1.88
7. Benefits of living in a different culture	1.38	14. Immigration procedures	1.88
		15. International recognition of degree	1.95

In 19.42 % of the occasions a university received score 0 or 1 for an item. Thus, that item was not discussed sufficiently on a university website – therefore, the prospective student possibly did not receive enough information to make an informed decision.

There are five different types of explanations that I would like to offer about why these universities have failed to communicate about these issues on their website: First, they might be ignorant about the findings in the literature that these things matter to the prospective students, or they disagree about the importance of these issues. Second, they might have something to hide: for example, if the computer labs the institution offers to its students are not very well-equipped or are less than satisfactory, it would not be clever to raise false expectations about them. Third, the institutions might prefer focusing on the issues that they think are more important in terms of student decision making. Fourth, the institutions might take things like safety at campus for granted, not recognizing that for students from more volatile countries, where e.g. a high crime rate is an issue, these might be very important. Finally, another reason that could explain the lack of communication about these topics could be the difficulty in expressing them, as

it some issues are more challenging to describe explicitly: for example, it is much easier to describe physical, concrete issues such as sports facilities, that abstract issues such as reputation or status.

Accreditations were ignored by six universities and briefly mentioned by two institutions, stating that they are highly accredited but not providing any details about by whom they are accredited. Accreditations might not apply to the field of technology and engineering in this geographic area.

In the study by Gatfield et al. (1999), frequently ignored topics were “good teaching”, “class timetable”, and “recognition” (which refers to degree or institution being recognized by government, potential industry association, or by potential employers). A total of 62 % of universities in their sample did not mention these recognition-related items at all, scoring a 0. In my study, some recognition related categories also received low scores, such as “international recognition of degree” (1.95) and “programme reputation” (1.45). In contrast, in my study teaching staff (2.88), teaching and learning methods (2.88) and course (2.38) all received high average scores.

#### *4.6 Notes on the research method*

In this section, I will evaluate the coding instrument used in this study, and discuss the use of time in terms of information search.

##### **4.6.1 Evaluation of the instrument**

As the framework used in the empirical study was compiled by the author from the literature, this was the first time that it was tested, leaving room for further development. The limits of some of the categories are not so clear: e.g. international environment could refer to the international population, atmosphere and mind-set in the host city or more specifically to the campus itself. Depending on this interpretation, it could contribute to both the city image and the institution image. Some text or oral



passages might fit to several categories, especially in terms of quality and reputation related issues. In my study, assigning the same piece of text to several categories was thus allowed, as the categories were not determined to be exclusive.

As the different issues important to the prospective students were collected from the literature, the author of this thesis could only rely on second-hand information provided by previous authors on the methods in which they came up with these issues and validated them through various kinds of empirical or theoretical studies. Therefore, as I did not derive these items from a study of my own, many of them had not been collected with a content analysis study in mind – that is why some of these issues were challenging to pinpoint in website content as they could only be expressed verbally by varying levels of explicitness. The author is also unable to revalidate what the conductors of previous studies, and the students or other informants they interviewed, actually *meant* with each term and if their interpretation was consistent with that of the author of this thesis. Objectively true knowledge does not exist in communicating meaning, because interaction is understood slightly differently by each person and in each culture or country in the world (Rubin & Rubin 1995, in Kohlbacher 2006). Eriksson & Kovalainen (2008, chapter 3) put it well: “When we interpret, it is not without our own gender, experiences, culture and expectations”. Therefore, I would conclude that this limitation is pertinent to all kinds of secondary data and thus is in the nature of qualitative research.

Another limitation in terms of the applicability of the framework is the context of its sources: the previous authors have studied the issues mostly in an Anglo-American setting, with a few studies conducted in Africa and Malaysia as well. As the geographical area studied in this thesis was a set of four countries in the northern Europe, not all of the issues in the framework might be directly transferable to this geographic and cultural setting. Additionally, the previous studies were conducted in a variety of fields of higher education, ranging from medicine to technology and humanities and arts. For example, even if accreditations are an important signal of quality in the field of business education, in the field of technology and engineering they were mostly ignored at least by the universities in this sample. In order to validate

the framework for the field of technology and engineering in the Nordic countries, a separate survey or such a study would have had to be considered.

The list of issues in the framework is probably not exhaustive. On the university websites, there were various pieces of information that they author personally found fascinating but which did not fit into the framework. For example, one of the universities had included videos about practical student projects on their website, and another had asked their students to interview world political leaders. One of the universities had also built separate section with material for students from specific target countries, such as Brazil or China. These sections were not included in this study, because the language of those materials was not English but e.g. Portuguese. However, to students from those countries these materials might have been meaningful.

#### **4.6.2 Use of time in information search**

Data collection or analysis of the website content in this study was a time-consuming process – this phase took up to 9.5 hours per university, averaging at 7.25 hours per university. This involved going through certain sections of each website (as specified in the Methodology chapter) page by page in an organized manner. However, in reality the prospective students might browse the website in a less organized manner, using search engines, clicking on links or scanning the pages for keywords they have in mind. The amount of time the user spends on the website would depend on his or her level of involvement, the time available for information search, and on the time it takes for them to satisfy their need for information. In other words, I as the author would not expect prospective students' information search to follow the method used in this thesis. For example, for that university whose website it took the longest time to go through, the content deserved good scores, but the website structure was quite complicated and it took a longer time than with the other institutions to uncover the information. This issue is one of the limitations of the research design used in this study: the structure and usability of a website was left out of the scope of this thesis. However, these topics bear great practical importance in website design.

Even if universities have made available all the information that a prospective student might desire, this information is of no use if the student does not find it. Even though certain information exists somewhere on the website, there is no guarantee that the prospective student will actually discover it before they give up on the search either because of having acquired enough information or because of getting frustrated not finding what they were looking for. The university cannot fully control the search patterns of prospective students – instead, the prospective student makes the decision about when they want to end the search. Thus, the student might end up making their decision based on limited information even if more relevant information would have been available.

It is important to pay attention to website architecture, structure and usability as these have a great role in determining whether the student ever comes across the information that they are looking for, let alone read the information that the university wants them to know. However, those issues are outside the scope of this thesis.

## 5 CONCLUSIONS

This chapter concludes the study by presenting a summary with main results, managerial and theoretical implications, the study's limitations, and some suggestions for further research.

### *5.1 Summary*

Selecting a university to study abroad is one of the most complex and expensive decisions that a student is likely to ever make. A prospective student needs to be able to evaluate his or her options, based on information on those issues which form his or her decision making criteria, in order to make an informed decision about which university and study programme to choose. The university website is one venue where such information can be offered. This information is controlled by the university itself, and it can try to influence the perception that the prospective student will form about the institution and its programmes.

The purpose of this thesis was to study how universities can use their website content as the facilitator of international Master's degree student decision-making. To address this topic, one main research question and one supporting sub-question were formed:

Main question: *“How can universities use their website content to facilitate international Master's degree student decision-making?”*

Sub-question: *“What kind of website content is relevant, informative and persuasive in terms of international student decision-making?”*

To answer these questions, I conducted a literature review into higher education marketing and student decision-making. In order to synthesize the views of previous authors, I compiled a framework that lists the issues that affect the prospective student's

purchase intention, or in other words, have been identified as relevant to international degree student decision-making. In the empirical part of this study, I moved on to test this framework on a sample of eight universities in Denmark, Finland, Norway and Sweden. The purpose was to examine whether their website marketing communications content aimed at this target group corresponded to students' information needs defined in the literature in terms of relevance, informativeness (in terms of quantity of information on each topic) and persuasiveness (in terms of quality of information on each topic).

Overall, the results were very positive: the average score of 2.24 suggest that these universities have provided extensive information about the issues in the framework, and also emphasized their strengths in terms of these topics to some extent. Thus, on average there seemed to be parity between students' perceived information needs and the website material. While host country, host city, and institution image, as well as programme suitability, were well-covered on average, there was still room for development as well. The factor Personal reasons was on average not covered sufficiently as its score was slightly below 2, which was the threshold for extensive information. Also some individual topics were mostly ignored, for example expected future earnings after graduation or availability of quiet areas, even though previous authors had determined these issues to be important to the prospective student. 19.42 % of all the grades given to each university were either 0 or 1, suggesting that a significant share of issues still need to be covered better in this sample group of universities. There were also considerable differences between the eight case universities, as in 28.57 % of the categories, the results varied on a full scale from 0 (no information) to 3 (emphasized item).

All in all, in comparison to previous studies conducted in the 1990s (see e.g. Gatfield et al. 1999), the communication gap between the prospective international students' information needs and the information provided to them by universities was much narrower than it used to be.

In conclusion, there were four issues about the results that were especially noteworthy.

First, a few issues need to be covered better, especially those that have been identified as top priorities for the students: e.g. international recognition of the degree, which was named by Bourke (2000) to be the second most important decision criterion for international students but only scored 1.95. Another important issues to cover better is expected future earnings, as career-related issues were deemed especially important to prospective students.

Second, all items related to host country image and host city image got an average score that was higher than 2, meaning that on average they were all emphasized by these case universities. This is surprising because most of the previous literature has focused on issues related to personal reasons, institution and the programme, while the physical context of the service provision has only interested a handful of authors. This could be related to the fact that most of the previous studies have been conducted in well-known countries such as the UK, the US and Australia, whereas the Nordic countries and cities included in this study are not as well-known throughout the world – therefore, it is more necessary for them to inform and persuade the prospective student to consider their location.

Third, also most facility-related issues were emphasized by these universities, even though facilities have not been deemed as a top priority for prospective students. However, these institutions seemed to find them important as they devoted a lot of website content to this topic.

Fourth, among these eight universities there were a lot of unique weaknesses in terms of website content, but only few unique strengths. In 32.14 % of the categories one or two universities got significantly lower scores than the others. These are the areas where these institutions risk standing out from their competitors in a negative way. In contrast, there were only two cases (corresponding to merely 3.57 % of the categories) where only one institution had emphasized an item. Therefore, it seems to be really challenging to stand out from the competitors because most of the institutions emphasize the same issues.

## *5.2 Limitations*

As the framework was compiled from a multitude of previous studies conducted in different countries, heterogeneous target groups, and a variety of fields of study, it might not apply perfectly seamlessly to the Nordic countries, international Master's degree students, nor to the field of technology and engineering. However, based on the results of this study, it seems that many of considerations that international students have are universal. If the framework and instrument used in this study would be used in other settings; meaning other institutions, countries or fields of study; it should ideally be validated in that other context first, e.g. by using surveys, panels, interviews, Delphi studies, or any other suitable method. In addition, when new findings about international student decision-making factors or their relative importance emerges in the literature, this knowledge can be used to update the framework.

The empirical part of this study only included two case universities from each of the countries. If the sample had been larger and more representative of the total population of universities in this region, more generalizable inferences could have been made about how well the website content of Danish, Finnish, Norwegian and Swedish universities responds to prospective students' information needs.

Another limitation for this study was that it was descriptive in nature: it examined what happens in the reality or what the institutions actually do, rather than the reasons that lead the institutions to this approach (e.g. what marketing strategies these institutions follow). This study did not attempt to measure the actual impact of the website materials on prospective students, or in other words, the website communication effectiveness. This could have been achieved if the students would have been asked to evaluate and grade website content, or via market research in order to determine whether the institutions' messages actually resonate with their intended audience. It also did not attempt to prove any causal relationship, e.g. between the quality of the website and the amount and quality of applicants or their satisfaction. This would be difficult to show also because websites are often not the only source of information that the student has,

and there may be other contributing factors that are outside the scope of the current framework.

This study focused on the existence of website content on particular issues, in terms of quality and quantity. However, any information that was not included in the framework was also not analysed. There was a lot of information on the case universities' websites that did not fit in to the framework but could potentially be interesting to the prospective student. It also did not affect the grades if there was also website content that was repetitive, inconsistent or irrelevant to student decision-making. However, any unnecessary information can be an extra burden for the prospective student because of information overload, as it can make it more difficult for them to locate the information that they actually need.

Another limitation was the unit of analysis used in this study. The instrument focused on text passages and oral passages in video messages. However, audio cues and visual cues, such as photos or website layouts or even landscapes and faces in videos or the music playing in the background, can have a great impact on the perception and feeling that the prospective student gets from the university marketing communications. The analysis was also focused on the content hosted or embedded on the university website, not considering any additional content provided by external parties via hyperlinks from the university website.

It was left outside of the scope of this study whether the prospective student actually finds the website easy to use and whether he or she can locate the necessary information with an acceptable amount of effort. However, the ease-of-use of websites, as well as issues such as website architecture and layout, can affect the prospective student's information search experience a lot. After all, the existence of a perfect information package is of no use to the prospective student if he or she never finds it.



### 5.3 Managerial implications

The results of this study provide some insights that can help the marketing practitioners and international policy makers in higher education institutions to better market their offering and to optimize their website content. Institutions can use the framework and findings of this thesis in an iterative manner to analyse their marketing communications content from the international student perspective and to adjust the content to better match the target group's information needs.

First, any institution that wants to study their marketing communications aimed at international students can use the framework of this study as a tool or a checklist to analyse their communications materials in order to see whether all these issues have been covered, and then adjust their website content accordingly.

Second, a similar exercise can be conducted to examine the marketing communications of the institutions' most important competitors, in order to find out where there might be room to stand out and communicate in a unique way. Thus, the framework can be used to both learn from competitors and to benchmark with them. This could help the institutions to move from merely underlining their strengths towards emphasizing their strengths *in relation to* their competitors.

Third, the framework of this thesis is not limited to analysing website content, but could be used for other types of information sources as well, e.g. prospectuses or brochures. The principles of analysis could also be applied to different countries and different institutions. However, the results of this particular study cannot be assumed to be the same for a different set of institutions as such.

Fourth, the framework could be used as a basis for market research into the institution's target group: for example, an institution could use it to do a survey in their most important target countries about what their prospective students identify as the most important decision-making factors. In a similar fashion, the framework could be

validated in a different field, e.g. in order to determine what information needs prospective arts students have. When the institution knows what its target group values, it can modify its marketing communications content to address them better.

#### *5.4 Theoretical implications*

The main argument of this thesis was that a university's website content facilitates international Master's degree student decision-making when the content is informative, persuasive, and concerns issues that are relevant from the student's perspective. A framework of 56 issues was compiled from previously separate studies in order to determine the relevant decision-making factors of international students. The empirical part of this study presented a way how the informativeness and persuasiveness (in terms of positioning) of communications content can be evaluated.

There seems to be disparity between what universities find important versus what previous authors have identified as students' priorities: host country image and host city image related issues were emphasized by the institutions, even though they have only received little attention in the literature. The same gap seems to exist in terms of facility-related issues as well. Many of these issues were mentioned also in written and video student testimonials on the university websites, suggesting that these points might be more relevant than researchers currently realize.

In terms of the issues that were not well-covered by the case universities, it seemed that the knowledge about student decision-making that is available in the literature has not yet fully trickled down into management practice in higher education institutions.

#### *5.5 Further research*

There seems to be still room for further research in international student decision-making. Specifically, the effect of host country and city image to the student decision-

making could be understood better if it was further studied. For example, based on the results of this study, it could be an interesting research topic to examine whether prospective students' information needs are different whether they consider a well-known location for study (e.g. the US) or a less-known location.

Many organizations conduct user studies in order to find out how well their target groups can find information on their websites. The ease-of-use of websites is a topic that has warranted a lot of practical advice e.g. on Internet. Further research into what kinds of information search habits different types of website users have, and how these habits could be taken into account when designing website content and structure, could help many institutions and other organizations to improve their website communications.

A time dimension could be taken into the equation of international student decision-making: a topic of study could be what information students need in each phase of the decision process: e.g. when they are still browsing a multitude of universities versus making the final decision between two contenders. This could, for example, have an impact on where on the website structure each piece of information should be located so that the prospective students can easily access whatever information they need for their decision-making.

It would be interesting to study student decision-making in a longitudinal study all the way from information search and application to post-evaluation in terms of their satisfaction during and after the completion of studies. It would be interesting to attempt to identify a causal relationship between the expectations that the student builds during the information search and evaluation phase before they select the institution, and how satisfied they are with their decision and the real experience that they get during their studies.

Also, I found that in the previous literature there was no consensus on what matters the most: while some authors said that the student first selects the country and only then the institution, some other authors suggested that the suitability of the programme is the

most important criterion and that students can accept any level of the other factors if the programme is desirable for them. Therefore, I suggest that more research should be undertaken into the relative importance of different decision-making factors. If there was better understanding about the importance weights that the different factors and issues have on student decision-making, my framework could be taken into a whole new level, as quantifiable importance weights could transform it into a tool that could be used not only to evaluate communications but also to roughly predict prospective student purchase intention. However, a lot of rigorous further development and testing would be required in order to take the framework to that direction.

Finally, website statistics, such as number of returning visitors, pages per visit, average duration of visits, website visitor demographics versus applicant demographics etc., could offer a wealth of data for further studies.

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## APPENDICES

### APPENDIX I: Coding Scheme

(10 pages)

Factor	Category	Possible sub-categories	Definition	Prototypical text passage	Rules	Author
Personal	Higher status related to studying abroad		Status-related argumentation for why to study abroad instead of home country.	"Swedish companies place a high value on engineers with international experience and good language skills. ... A degree from KTH confers high status."		Cubillo et al. 2006, Bourke 2000
	Benefits of living in a different culture		Culture-related argumentation for why to study abroad instead of home country.	"Cultural exchange is the most important thing."		Cubillo et al. 2006
	Making international contacts		<i>Average of the two subcategories.</i>			Bourke 2000, Cubillo et al. 2006
		Social events for international students	Social events targeted at an international audience.	"The student life in Tampere also includes parties. They happen almost every weekend and they are the best places to meet new people from different parts of the world and learn about their country."	Event must take place in English.	Mpinganjira 2009, Van Aart 2011
		Student clubs & associations	Activities of student clubs & associations.	"[The student club] will make sure you have the best possible stay in Trondheim."		Van Aart 2011

		tions			
	Lan- guages course on offer		Language courses of local language.	"It is highly recommendable for international degree students to take Finnish language courses."	Bourke 2000; Cubillo et al. 2006
	Testi- monials		Testimonials by current students, alumni, faculty members or employers.	"Finland and especially Tampere are perfect places to experience something different in the positive sense."	Must be stu- dy- rela- ted. Bin- sardi & Ekwu- lugo 2003, Bourke 2000
Host coun- try	Local culture		Describes the local culture and habits in the host country.	"Finnish rich culture equally embodies the resilience, genuineness and tenacity of its somewhat self-effacing and yet, creative and admirable people."	Cubillo et al. 2006, Mpin- ganjira 2009, Bourke 2000
	Quality of life - national		Attributes related to quality of life.	"Newsweek put Finland at the top of the list for its "best country to live in" index."	Cubillo et al. 2006
	Social repu- tation		Positive social attributes the country is famous for.	"one of the world's least corrupt countries"	Cubillo et al. 2006
	Aca- demic repu- tation - national		Positive national reputation for academics or education.	"Country's good reputation in education, combined with the wide range of courses offered in English, makes Finland increasingly attractive to international students."	Bourke 2000, Cubillo et al. 2006
	Industry reputati on		Positive national reputation for excellence within an industry.	"Sweden is one of the world's foremost research nations and a pioneer in biotechnology, medical innovations, microelectronics, IT,	Bourke 2000

				telecoms and space research."		
	Cost of living - national		Cost of living in the country.	"Even if living cost in Finland is expensive but you are going to get lots of benefits as students. In other worlds, you can concentrate on your study without any financial worries."		Bourke 2000, Joseph et al. 2005, Cubillo et al. 2006
	Opportunity of working during the course		Legal or progressing-in-studies related rules that limit or allow working.	"Foreign students are allowed to work in Sweden during their period of study. No additional work permit is needed. However, please be aware that it is difficult to find a part-time job in Stockholm, especially if you do not speak Swedish."		Cubillo et al. 2006
	Immigration procedures		Information about moving into the country.	"health insurance which is compulsory for a student residence permit"		Cubillo et al. 2006
Host city/ region	City dimension		Scale and scope of the city.	"Aarhus is Denmark's second largest city. It has all the advantages and resources of a big city while keeping to a manageable size, and consequently everything in Aarhus is within biking distance."		Cubillo et al. 2006, Van Aart 2011
	Quality of life - local		Attributes related to quality of life within the city and surrounding region.	"the Mercer report listed Helsinki as one of the top cities to live in"		EMERGING
	Cost of living - local		Cost of living in the city.	"Stockholm can be very affordable... most resources are provided to students at very low costs"		Bourke 2000, Joseph et al. 2005,

					Cubillo et al. 2006
	International environment		How international is the city's population.	"International Community's efforts to support international employees and their families during their stay in the Aarhus region resulted in Aarhus Municipality's Integration Award 2012."	Cubillo et al. 2006, Van Aart 2011
	Level of spoken English		How easy is it to get along with English.	"lots of people understand and communicate very well in English, which is amazingly convenient"	Van Aart 2011
	University environment		E.g. location of the university, whether it is easy to reach, what kind of neighbourhood it is in.	"Otaniemi has the highest concentration of high technology in the Nordic countries. A unique combination of education, study and business is densely packed into this small area."	Cubillo et al. 2006, James et al. 1999
	Social facilities in the city		E.g. health care, hobby or cultural opportunities offered in the city	"NTNU's Museum of Natural History and Archaeology was selected as Norway's Museum of the Year in 2010. The museum develops and operates a number of Norway's oldest and largest natural and cultural history collections."	Cubillo et al. 2006
	Safety & security in the city		Safety & security in the city	"We are located in the centre of Stockholm, one of the cleanest and safest capitals in the world."	Cubillo et al. 2006

Insti- tution	Insti- tution prestige		Widely recognized prominence, distinction, or importance	"Eighty per cent of the country's graduate engineers have been educated in Trondheim. The graduates of our university have literally been building the nation for almost a century."		Cubillo et al. 2006
	Ran- king position		How is the university ranked nationally or internationally	"In 2010, it was ranked by the respected Leiden Ranking as No. 1 in Scandinavia and No. 7 in Europe."		Cubillo et al. 2006, Van Aart 2011
	Accre- dita- tions		Any accreditations that the university or its technical programmes have.	"highly accredited university"		Hanson 2000
	Co- opera- tive partners		Information about the network of cooperation partners that the university has.	"NTNU is a member of the Nordic Five Tech, an exclusive, strategic alliance of the five leading technical universities in Denmark, Finland, Norway and Sweden. "		EMER GING
	Identity		What the institution stands for and strives to be.	"Aalto University aims to break down barriers between scientific and artistic disciplines in a hope to also do things differently. The most recent creativity and innovation theories support the idea that interaction between different kinds of people facilitates the birth of new ideas."	E.g. vision , missio n, posi- tion state- ments.	Bourke 2000, Anctil 2008, Hall 1994, Väli- maa 2004, Ivy 2001

Quality reputation		Is the university well-known for the quality of its operations?	"The quality of research in DTU matches the best in the world"		Moo-gan 2011, Cubillo et al. 2006
Researcher reputation		Reputation of the institution for research.	"Our research and education are to be highly regarded in international academic evaluations."		Cubillo et al. 2006
Academic reputation – institution		Reputation of the institution for academics or education.	"KTH is ranked as the premier technical university in Sweden, and as one of the leading seats of learning in Europe."		Bourke 2000; Moogan 2011
Teaching staff		What are the teaching staff members like.	"you are in close contact with researchers in a way that you rarely experience at other universities. You are taught by engineers who typically have a strong industrial background"		Moo-gan 2011, Voss et al. 2007, Cubillo et al. 2006
Learning / teaching methods		Methods used in teaching and learning.	"Company projects also form part of the learning process. When managers, teachers and students get together to solve real-life management problems, it provides our students with invaluable learning opportunities."		Bourke 2000, Moo-gan 2011
Campus atmosphere		What is it like to study and spend time on the campus?	"The attractive study environment characterized by the unique campus situated in the beautiful University Park, the international atmosphere, the proximity to the city centre and the many academic and social		Cubillo et al. 2006

			activities gives you the best surroundings for your study life at Aarhus University."		
Social life at campus		Social events at the campus, making friends at the university.	"But the thing I would emphasize the most, is the incredibly social daily life students of petroleum geosciences have."		Price et al. 2003
Safety & security at campus		Safety & security at campus	"I feel safe here, no matter where I am and what time it is."		Price et al. 2003
Accommodation		Accommodation offered to international students, or information about how to find in independently.	"Teekkarikylä' Student Village, home to over 2,000 students of technology"		Van Aart 2011
Library facilities		University library services	"the best thing is the atmosphere [at the library]"		Cubillo et al. 2006
Availability of computers		Computer facilities on campus or offered by the university	"NTNU's 65 main computer labs are located on the Gløshaugen and Dragvoll campuses, and all libraries have banks of computers that can be used to both access library services as well as the Internet."		Cubillo et al. 2006
Availability of quiet areas		Quiet facilities for whatever purpose on campus or offered by the university	"quiet places to study"		Cubillo et al. 2006
Availability of self-study areas		Self-study facilities offered on campus or by the university	"student house [is a] perfect setting to study"		Cubillo et al. 2006



	Sport facilities		Sport related facilities offered on the campus or by the university	"Two sports centres and 50 different sports groups make NTNUI a perfect complement to student life."		Price et al. 2003
	Other facilities		Any other facilities on offer in the campus area, e.g. health care, childcare	"personal mentor for fee paying students"		EMERGING
	Support for settling into the country & institution		<i>Average of the two sub-categories.</i>			
		International Office support	Services offered by international office or similar staff.	"we will do everything we can to make sure you get on well and feel at home"		EMERGING
		Orientation	Information about orientation and guidance in the beginning of studies.	"The purpose of the Aalto First Year Experience (AFYE) is to offer new Aalto University students the best possible experience as a first-year student at our university."		Bourke 2000
Programme	Programme suitability		What kind of people and interests the programme is aimed at.	"This is a programme for those interested in creating new kinds of management solutions in a business-to-business environment. The programme is meant for students with a solid basic education in technology and an interest in innovative applications."		Mazzarol & Soutar 2002, Connor 1999, Ivy 2008a & b, Soutar & Turner 2002, Whitehead

						2006, Hooley & Lynch 1981, Cubillo et al. 2006
	Programme reputation		Is the programme respected or well-known outside the university?	"educational programmes at KTH are regarded as exclusive"		Bourke 2000, O'Mahony et al. 2001, Morrow et al. 1995, Roberts & Allen 1997, Roberts & Higgins 1992, Yugo & Reeve 2007
	Programme specialization		What opportunities are there for specialization within the programme.	"The programme provides an excellent possibility for a broad spectrum of studies in radio science and engineering with different focus areas."		Cubillo et al. 2006

Quality of programmes		Quality of the programmes selected for analysis, or all programmes of the university in general.	"The Master's programmes present an opportunity for students with excellent academic performance to obtain a competitive Master's degree of the highest international standard."	Statements related to specific programmes not part of the analysis excluded.	Turner 1998, Bourke 2000, Qureshi 1995, Cubillo et al. 2006
Courses		Information about the courses.	"Close links between education and research ensure that courses include the latest developments within any given field."		Qureshi 1995, Bourke 2000
Expected future earnings		Related to salary or other monetary compensation after graduation	"Educations at KTH hold seven places in the top 10 list for best starting salaries for students."		National Union of Students 2008
Future job or career opportunities		Employment prospects after graduation	"programme offers the shortest way to careers that invite you to apply technology to business in new and innovative ways "		Cubillo et al. 2006, Bourke 2000
Working in the host country		Employment prospects generally in the host country or the area.	"In Denmark many international graduates have obtained prosperous positions and have had the benefit of their international approach and study efforts."	A geographical component.	Cubillo et al. 2006

Inter-national recognition of degree		How well is the degree recognized in other countries than the host country, and how well are its graduates valued?	"you can easily find a good job abroad, as well as in Sweden, due to KTH being worldly known"	A geo-graphical component.	Turner 1998, Bourke 2000
Admission requirements		How to apply, what requirements are there for applicants	"Admission is granted on a competitive basis – the applicants are assessed on the basis of their academic record and compared to each other. Only the best applicants gain admission."	Ex-cluding language-related requirements	Bourke 2000
Language requirements		What level of language skills are required from applicants.	"KTH has a strict policy regarding its English language requirements"		Bourke 2000
Educational facilities		Facilities used for tuition, e.g. laboratories, lecture rooms.	"Students have access to state-of-the-art laboratory equipment"		Bourke 2000
Fee		Information about tuition fees.	"I chose Finland because offers one of the best education systems in the world and a unique student life with NO tuition fees that is so important for international students"		Qureshi 1995, Bourke 2000, Joseph et al. 2005, Cubillo et al. 2006
Availability of financial support		Information about available scholarships or other monetary support.	"The programmes offer excellent scholarship opportunities."		Qureshi 1995, Cubillo et al. 2006

*APPENDIX II: Modifications made to the coding scheme following test coding*

(3 pages)

<b>Factor</b>	<b>Modifications after test coding</b>
<i>Personal reasons</i>	<ul style="list-style-type: none"> <li>- Items ‘future job opportunities’ and ‘enhanced future career prospects’ both refer to career after graduation. They were combined to “future job/career opportunities”.</li> <li>- Item ‘working in the host country’ refers to career opportunities (before or after graduation) specifically in the host country. The author deduced that this should require reference to a location, such as “in the area there are plenty of companies in this field”.</li> <li>- As many career topics were found to be programme-specific in the Stavanger University website, all career-related topics were moved under the Programme evaluation factor.</li> <li>- Item ‘benefits of studying abroad’ received no mention on the Stavanger website. However, I find that it is also an interesting result if also the other universities do not mention the general benefits of studying abroad (which could convince the student to choose to study abroad instead of his/her home country institutions). Therefore, will keep this topic and its categories.</li> <li>- Item ‘social events for international students’ concerns event that are explicitly targeted at an international audience, arranged in English language. Other social events in general will fall under category “social life at campus” (if they are arranged at campus).</li> <li>- ‘Item ‘Testimonials’: Stavanger website included undergraduate testimonials. The author decided that this category may include testimonials of any person affiliated with the university (such as students, alumni, staff members) as long as the topic of the testimonial is related to issues interesting to the students, that is, any categories defined in the coding scheme.</li> </ul>

	<ul style="list-style-type: none"> <li>- Considered items ‘Material targeted at parents’ and ‘Material targeted at other influencers’ is too general – can rather answer yes/no than use the full 0-3 scale. These categories will thus be deleted. The topic of targeting other people besides the prospective student himself or herself will be left out.</li> <li>- Item ‘Opinions of friends and family’ cannot be discussed on the university website, so this item is left out.</li> <li>- Considered item ‘Language versions other than English’ – of minor relevance, because if the prospective student is planning to study in English, they are expected to be able to consider the English language information on the website as well. Category will be deleted.</li> <li>- Considered item ‘Opportunity for personal contact’ cannot be graded on the full 0-3 scale. Topic and its categories will be left out of the framework.</li> </ul>
<i>Country image</i>	<ul style="list-style-type: none"> <li>- Since all Nordic countries have a relatively high standard of living or development level, the author decided to replace ‘Development level’ category with an emerging category ‘Quality of life’. On the Stavanger University website, development level was not discuss, instead the focus was on quality of life in the region.</li> <li>- The meaning of item ‘Opportunity of working during the course’ was refined: does not refer to available jobs but to the extent working is allowed with the visa, may also include time-related information (e.g. may work if progresses in studies as quickly as planned).</li> <li>- Item ‘Allowed time to get the degree’ was deemed not feasible to grade on the full 0-3 scale: there either is some limit or not. Therefore, category was dropped.</li> </ul>
<i>City image</i>	<ul style="list-style-type: none"> <li>- Host city was found not broad enough to cover the physical context of the student experience – therefore, this factor was extended to include also the surrounding region. The factor was not renamed, but content related to the host region may be included in this factor.</li> <li>- The meaning of item ‘city dimension’ was described as referring to</li> </ul>

	<p>size and importance of host city (e.g. population, geographical size, whether it's a hub in the area).</p> <ul style="list-style-type: none"> <li>- 'Local quality of life' added as an emerging category.</li> </ul>
<i>Institution image</i>	<ul style="list-style-type: none"> <li>- An emerging category 'cooperative partner network' was included to describe the institution's connections in terms of studies, employment and research.</li> <li>- An emerging category 'identity' was added to describe what the institutions wants to stand for and aims to be.</li> <li>- Item 'brand reputation' was deemed too vague and difficult to grasp in terms of explicit iterations in website content. Therefore, this category was removed.</li> <li>- Emerging category 'other facilities' was added to describe the university's support facilities and services, e.g. related to restaurants, child care, and health care.</li> </ul>
<i>Programme evaluation</i>	<ul style="list-style-type: none"> <li>- An emerging category 'programme reputation' was added to describe the merits and prestige of individual programmes.</li> <li>- Item 'Recognition of future employers' was merged with the category future job/career prospects, as they were very similar.</li> </ul>