

Decision-making Process of Prospective International Students: a Proposed Generic Complementary Model

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Abstract: The global education market is rapidly expanding and the number of students has increased significantly over the last years. Despite this positive development, German universities are affected by a high international competition. Prospective students can choose of a broad variety of educational products and will apply at several universities at the same time. To support marketing departments of higher education institutions, the paper provides a generic conceptual model on the decision-making process of potential international students including influencing parameters. Applying a scoping study and content analyses, the concept bases upon theoretical concepts in this field but also the latest empirical findings.

Keywords: Higher Education Marketing, decision-making process of international students, scoping study

Introduction

According to a study by Ken Research and Euromonitor International, the global education industry is not only among the largest sectors worldwide but also one of the fastest developing (Euromonitor International 2017, Ken Research 2011). Hereby, the global higher education market plays a significant role: The number of students has more than doubled between 2000 and 2014 (207 million) (UNESCO 2017). In 2009, China, India, the US and Russia have a combined share of 45 per cent of total global tertiary enrolments (British Council 2012). “A key feature of the global tertiary education sector has been the growth in internationally mobile students. Their number has risen from 800,000 in the mid-1970s to over 3.5 million in 2009” (British Council 2012: 4). In 2016, there were about 3.5 million foreign students within OECD areas (OECD 2018). Despite an increased share of foreign students among freshmen at German higher education institutions (hereinafter: HEIs) (2004: 19,5%; 2016: 24,8%, (Statista 2018)) and almost no study fees, Germany still ranks below countries like the US, the UK,

Australia and France (British Council 2012) with respect to the number of foreign students enrolled. According to a report by UNESCO, private universities in particular benefit from the global market growth (UNESCO 2017) although it did not change the disparity of access to college (across 76 countries, 20% of the richest 25–29 year olds had completed at least four years of higher education, compared with less than 1% of the poorest (Bagri 2017). As the demand for higher education is going to rise in the future, German governments and (public) HEIs have to respond adequately, to secure German HEI will not be left behind.

It is important to understand that HEIs in today's globalized world are considered businesses, whether they are profit or non-profit, private or public organizations (Hemsley-Brown & Oplatka 2006). Therefore, HEIs employ the same methods and tools that have been endorsed in the business world and use marketing to identify and satisfy the needs and wants of their customers – potential international students (hereinafter: PIS). “Globalization and market pressure in the education sector have propelled higher education institutions to constantly review on the need of economic accountability and performance improvement, many universities aim to increase the number of students admitted as a means of increasing their income while the admitted students are considered as customers” (Watjatrakul 2014: 676). Farjam and Hongyi consider students to be “consumers in higher education,” who “exist in positional market, where institutions compete for the best students while the applicants compete for the most preferred institutions” (Farjam & Hongyi 2015: 72). Understanding students as customers and attracting PIS with marketing programs sounds simple. In fact, it is quite a challenge:

“Across the European Union, higher education institutions are operating in an increasingly competitive environment. Nowhere is this more apparent than in the area of international student recruitment, where increased student mobility combined with an increase in the number of institutions offering English-language degrees has created more choice than ever before for international students.” (QS Enrolment Solutions 2017) Setting up appropriate marketing programs is not only seen as a competence by HEI anymore, it is performed & supported by regional and national governments as well (Cubillo et al. 2006, GATE-Germany 2018b). The UK Government is said to have sponsored several initiatives to become the world's leading nation in international education (Binsardi & Ekwulugo 2003).

The “decision to study overseas is one of the most significant and expensive initiatives that students may ever undertake” (Cubillo et al. 2006: 102 referring to Mazzarol 1998) and international education is not a frequently purchased service by this target group (Nicholls et al. 1995, Cubillo et al. 2006). Hereby students will consider various aspects in addition to the program offered by a foreign HEI (like safety, security, cultural activities, country image etc.) (QS Enrolment Solutions 2017, 2018).

To support German HEIs in meeting these challenges, the DAAD (= German Academic Exchange Service) has set up different research and supporting programs (GATE-Germany 2018a). However, these programs do not fully support HEI marketing departments in understanding the decision-making process of PIS. Knowledge of the decision-making process and its influencing factors are a central prerequisite for attracting PIS to study programs at German HEIs. The purpose of this paper is to propose a generic conceptual model on the decision-making process of PIS including influencing parameters. Our work will be based upon theoretical concepts in this field but also the latest empirical findings.

1 Theoretical perspectives on decision-making processes of prospective international students

1.1 Methods

To summarize and structure the existing theoretical knowledge on decision-making processes of PIS, a scoping study was performed. “A scoping review or scoping study is a form of knowledge synthesis that addresses an exploratory research question aimed at mapping key concepts, types of evidence, and gaps in research related to a defined area or field by systematically searching, selecting, and synthesizing existing knowledge.” (Colquhoun et al. 2014, p. 1292-1293). This research method was applied by using the methodological steps outlined in the Arksey and O'Malley (2005) framework.

Following the first stages of the scoping study, seven models were selected for further analysis (s. table 1). It needs to be stated here that a large majority of the identified sources are older than 20 years. Only the concept by Oliveira & Soares was published within the last five years.

1.2 Findings

The identified theoretical concepts were examined in a descriptive analytical manner with respect to: (1) the general research approach; (2) sequences and (3) presented influencing factors of the decision making process of PIS (= stage 4 “Charting the data” of the scoping study according to Arksey & O'Malley(2005); s. Colquhouna et al. 2014). In the following chapters, results of the performed scoping study will be presented.

1.2.1 General research approach

With regard to the general research approach it needs to be stated that a large majority represent conceptual models, either own creations or generic concepts resting upon existing concepts in that field (s. table 1). Moreover, only the concepts by Cubillo et al. (2006) and Oliveira & Soares (2016) address decision-making practices of PIS in particular. All of the reviewed concepts included parameters of decision making.

Table 1:

Selected theoretical concepts on the student decision making process

Age of concept	Author	Year	Title of the conceptual framework	Research Approach	Population	Integration of parameters
≤ 10 years	Oliveira & Soares	2016	Conceptual Model for the decision process of international students	Literature Review & Qualitative Study (interview with currently enrolled students in engineering programs at a public university in North of Portugal)	PIS	X
11-20 years	Vrontis et al	2007	Concept a: Preliminary integrated generic higher education student-choice model	Generic Concept build upon Jackson (1982); Chapman (1986) & Hanson and Litten's (1989)	US/CA	X
	Vrontis et al	2007	Concept b: A contemporary higher education student-choice model for developed countries	Conceptional Model	Students from developed countries	X
	Cubillo et al	2006	A model of international students' preferences	Conceptional Model	PIS	X
	Perna	2006	Conceptual model of student college choice	Conceptional Model	US	X
21-30 years	Hanson & Litten	1989	Mapping the road to academe	Conceptional Model	n.d.	X
> 30 years	Hossler & Gallagher	1987	Three-Phase model of college choice	Generic Concept build upon Alexander (1978); Anderson, Bowman, and Tinto (1972); Jackson (1982); Litten (1982); Chapman (1981)	US/CA	X
	Chapman	1981; 1986	A behavior model of the college selection process	Behavioral Model	CA	X
	Jackson	1982	Combined student choice model	Conceptional Model	US	X

1.2.2 Stages of the decision-making processes

Except for the concept of Perna (2006) and Cubillo et al. (2006), all reviewed processes span three or five stages. Five-stage concepts suggest strong dependences on the traditional decision-making process of consumers in general (Kotler et al. 2008). Perna “uses the term ‘college choice’ to refer to all phases” (Perna 2006, p. 101) of the decision-making process. Her concept centers around an evaluation of expected monetary and non-monetary benefits and expected costs, whereby evaluations are “influenced by an individual’s academic

preparation for college and availability of resources to pay the costs of attendance” (Perna 2006, p. 116). To evaluate similarities and differences in the order of stages, all stages were colored based on content similarities (s. table 2).

Most of the concepts begin with the recognition of a need to study which can turn into aspirations to study abroad. According to Oliveira & Soares (2016), students’ main motivation for leaving their country of origin is the goal of seeking an international experience for personal, academic and professional development. Following the stage “*Need recognition & aspirations to study abroad*”, PIS most likely start to search for information (about studying abroad in general, HEI, study programs etc.) to satisfy their needs (=Search Stage). Jackson (1982) did not include a search stage. Within the concept by Hanson & Litten (1989) as well as in the generic concept by Vrontis et al. (2007) a distinction between “locating information” and “gathering information” is made. In the latter case, this may be caused by building upon student decision-making processes from the 1980s. In the same sense Chapman (1986) and Hanson & Litten (1989) assumed that prospective students form a set of potential HEIs before their search. As information-seeking processes have been technologically improved, enabling potential students to gather information globally and simultaneously, the separation as well as the formation of a fixed set of alternatives before searching will not be considered appropriate anymore.

Table 2:

Comparison of stages of identified student decision-making processes

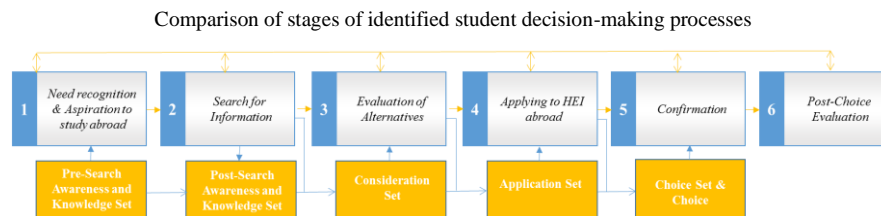
Jackson (1982)	Chapman (1981 & 1986)	Hanson & Litten (1989)	Hosler and Gallagher (1987)	Perna (2006)	Cubillo et al (2006)	Vrontis Generic Model (2007)	Vrontis Contemporary Model (2007)	Oliveira & Soares (2016)
I Preference stage (educational aspiration)	I Pre-search stage (List of considered colleges)	I Having college aspirations	I Pre-disposition (Determination of study aspiration)	Evaluation of expected monetary and non-monetary benefits and expected costs	Purchase Intention of PIS regarding the destination country as provider of the education service	I College aspirations	I Need Recognition	I Need recognition
II Excluding institutions from the prospective list	II Search Stage	II Investigation of HE and creation of set of candidates (sub-phase: Searching & gathering information)	II Search			II Search process	II Info Search	II Information search
	III Application Decision	III Process of applying and enrolling	III Choice (which college to attend)			III Information gathering	III Alternative Evaluation	III Evaluation of alternatives
III Evaluation stage	IV Choice Decision	V Matriculation Decision				IV Sending Application	IV Purchase & Consumption	IV Purchase & Consumption
						V Enrolling	V Post-consumption Evaluation	V Post-consumption evaluation

Decision making takes place in the third stage, whereby some researchers separate this stage into a pre-purchase stage “*Evaluation of Alternatives*” and a purchase stage “*Application Decision*”. In the later stage PIS have to decide, when, what for and where to apply (Vrontis et al. 2007). At this stage, a high involvement from students can be assumed (Nicholls et al. 1995; Cubillo et al.

2006). This supports the separation of a pre-purchase and purchase stage according to the Contemporary Model by Vrontis et al. (2007) and Oliveira & Soares (2016).

Furthermore, the purchase stage may be divided into three sub-stages: Applying (Chapman 1986; Hanson and Litten 1989; Vrontis et al. 2007); Matriculation Decision (Chapman 1986) and Enrolling (Hanson and Litten 1989; Vrontis et al. 2007). As a large majority of PIS apply on average to 5 HEI (QS Enrolment Solutions 2018), an equation of applying and enrolling may be considered as unrealistic. Therefore, a separation of the purchase stage into “*Applying at an HEI abroad*” and “*Confirmation*” is considered suitable. The later includes matriculation decisions as well as enrolling at an HEI overseas. Chapman (1986) integrated “*Matriculation Decision*” to take the likeliness of changed circumstances into account due to timing differences between application (spring) and matriculation (fall). Additionally, a majority of college-choice research supports the idea, that “inaccurate or incomplete information may affect a student’s decision, the decision would still be rational provided that it was based on a reasoned reaction to the information available to them at the time that they made the decision” (DesJardins and Toutkoushian, 2005, p. 218). The final stage indicates a “*Post-Choice Evaluation*” of the experienced education abroad (Oliveira and Soares 2016; Vrontis et al. 2007). This stage will not be examined in further research, as the focus lies upon initial decisions.

Figure 1:



Within the course of the investigation a close alignment of more recent concepts with the classical consumer decision-making process can be stated. We strongly support the comparability of consumer decision-making processes for complex services with the decision making of PIS on foreign educational products. Yet, we would recommend further specifying the generic concept in two aspects:

- (1) Firstly, none of the existing concepts integrated feedforward **and** feedbackward interrelations between all stages of the decision making process. However, both exist within the classical buying process (Tyagi & Kumar 2004) as well as in real life: Through this process, the aspiration to study abroad may be narrowed down to a set of potential countries based on the gained information about visa requirements. And following a rather rational approach of decision making, the ideal process assumes that the gathered information will influence the evaluation & choice of prospective HEI by the PIS.

- (2) Secondly, the decision-making process must include the consideration set of potential HEIs within students' choice. Due to the internationalization of the education market (e.g. by the Bologna Reform), the mass adoption of the internet, as well as the penetration of mobile technologies, there is a huge offer of study programs and simply too much information out there. Following Shocker et al (1991), we assume that students' "decision making is based upon hierarchical or nested sets of alternatives which [...] are processed by the decision maker prior to choice" (Shocker et al. 1991, p. 182). All potential solutions (study programs, HEIs, countries etc.) which in general satisfy the need to study abroad shape the universal set of a PIS. Although information searching has been improved, it can be assumed that PIS may not know about all existing solutions. Instead, their decision making will be limited to the solutions which they come across or know about (=awareness or knowledge set) (Donkers 2002). From this set the consideration set evolves, which holds all acceptable alternatives or solutions for later consideration in decision making (Chapman 1986). The consideration set is purposefully constructed, influenced by context factors and outcomes of decision-making stages. The application set consists of the most relevant solutions (= choices) which the PIS will select from the consideration set and where students are going to apply. (Chapman 1986; Jackson 1982); Hossler and Gallagher 1987; Shocker et al. 1991)

Upon that stage of research, the decision-making process of PIS will be shaped as presented in figure 1. This cycle of stages will be used in further research on the influencing factors of students' decision making.

1.2.3 Influencing parameters of the decision-making process of prospective international students

Looking at the type of influencing factors, it needs to be stated that combined or complementary models dominate the research. All concepts include indicators from economic as well as sociological models. Economic concepts build on the economic model of human capital investment, whereas student investments in education are a result of a comparison of expected lifetime monetary and non-monetary benefits and expected cost. (Becker 1962, 1993; Ellwood and Kane 2000; Paulsen 2001 cited in Perna 2006). Although students will certainly face incomplete or incorrect information, this approach follows a rational behavior pattern in decision making (DesJardins and Toutkoushian, 2005). Sociological models try to explain the influence of socioeconomic backgrounds on students' choices (Terenzini, Cabrera, & Bernal, 2001; cited in Perna 2006). As both concepts have their limitations, a combination is viewed beneficially in the literature (Perna 2006).

With respect to stages 1-5 of the developed generic theoretical concept on the decision-making process of PIS (s. figure 1.), all stated parameters were gathered and classified by applying content analyses. Notwithstanding the high relevance of

the concept by Oliveira & Soares (2016), it must specifically be addressed here that their plotted concept stated fewer parameters than they discussed previously. Within our studies we integrated only the parameters plotted (s. Oliveira and Soares 2016, p. 138).

Table 3:

Influencing factors on stage „Need recognition & Aspiration to study abroad” (based on Jackson 1982; Hanson & Litten 1989; Hossler and Gallagher 1987; Vrontis et al. 2007; Oliveira & Soares 2016).

(a) Individual Factors	(b) Environment	(c) HEI	(d) High school
<p>A1: Student Characteristics: race, income/resources, socioeconomic status, parent’s education/job, family culture/background, religion, sex, proximity to a university at home country</p> <p>A2: Personal Attributes: class rank, academic ability/aptitude, students/academic performance/achievements, self-image; personal value, benefits sought, personality, lifestyle/social context, educational aspirations</p> <p>A3: Motivational Attributes: outcome of international experience</p>	<p>B1: Home Country <i>B1a: General</i> occupational structure; economic conditions, cultural conditions <i>B1b: Public Policy Aid</i> <i>B1c: Influences/Media</i> parents, career, neigh-borhood, counsellors, peers, communications, college officers</p> <p>B2: Destination Country <i>B2a: General</i> occupational structure; economic conditions, cultural conditions geographical location destination country; cost of living <i>B2b: Public Policy Aid</i> <i>B2c: Influences/Media:</i> social references and personal recommendations (parents, peers), available info destination country</p>	<p>C1: Characteristics: cost/ financial aid; size & location; control (public/private); program availability</p> <p>C2: Actions: recruitment activities; admissions policies; aid granted; communications</p>	<p>D1: High School Characteristics: social composition; quality; curriculum; programs</p>

Stage 1 - Need recognition & Aspiration to study abroad: With respect to the first stage, four main factors are considered in the literature: (a) *Individual Factors*, (b) *Environment*, (c) *HEI* as well as (d) *High School* (Hanson and Litten 1989; Jackson 1982; Oliveira and Soares 2016; Vrontis et al. 2007). Except for the contemporary model by Vrontis et al. (2007), all parameters are specifically related to influencing aspirations to study (abroad). As some concepts represent generic works, a broad agreement is no surprise. Yet, a more applicable classification was derived from content analysis. Student characteristics, personal as well as motivational attributes, represent individual factors. From our point of view, environmental factors shall be further separated into home-country specific and destination-country specific factors, as varying conditions across countries may pull (better occupational or economic conditions in foreign country), or push (lack of opportunities to study in domestic area, censorship etc.) human capital abroad (Oliveira and Soares 2016). Unfortunately, the influence of HEI was not pointed out in the concept by Oliveira & Soares (2016). The presented parameters are considered relevant for study decisions in general (Hanson & Litten 1989; Hossler and Gallagher 1987; Vrontis et al. 2007). By looking at empirical studies

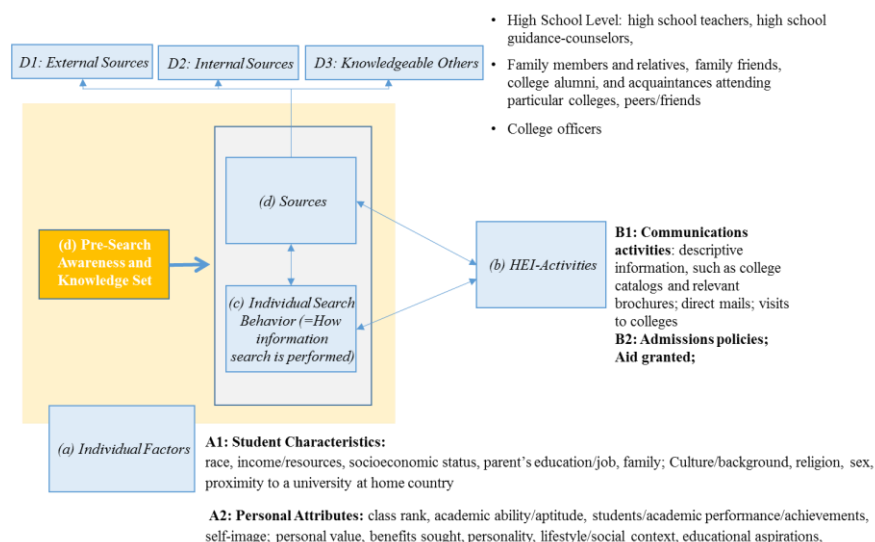
in chapter 3, the influence of the main characteristics of foreign HEI will be further investigated. The impact of the attended high school is only addressed by concepts focusing on students in general, not on PIS. For the decision making process of PIS this factor is viewed as subordinate as it mainly influences the decision to study in general.

Stage 2 - Search for Information: Five out of seven concepts listed relevant factors influencing students' search (Chapman 1981 & 1986; Hanson & Litten 1989; Hossler and Gallagher 1987; Vrontis et al. 2007; Oliveira & Soares 2016). According to these concepts, five relevant factors have to be considered: (a) *Individual Factors*; (b) *HEI-Activities*; (c) *Search activities performed by students*; (d) *Sources* and (e) *Pre-Search Awareness & Knowledge Set* (s. figure 2).

As described before, students start their search based on a "Pre-Search Awareness & Knowledge Set" (=preliminary college value, (Hossler and Gallagher 1987)), that includes HEIs which students came across in preceding periods. According to Hossler and Gallagher (1987), HEI-activities, search activities performed by students as well as existing sources influence each other. On the one hand, HEI carry out target group-specific marketing activities to search for students and, on the other hand, potential students search for relevant information about HEI. Following Vrontis et al. (2007) it can be assumed that individual determinants have an impact on the student's pre-search awareness & knowledge set and search activities, as well as sources used by the student.

Figure 2:

Influencing factors on stage „ Search for Information” (based on Chapman 1981, 1986; Hanson & Litten 1989; Hossler and Gallagher 1987; Vrontis et al. 2007; Oliveira & Soares 2016)

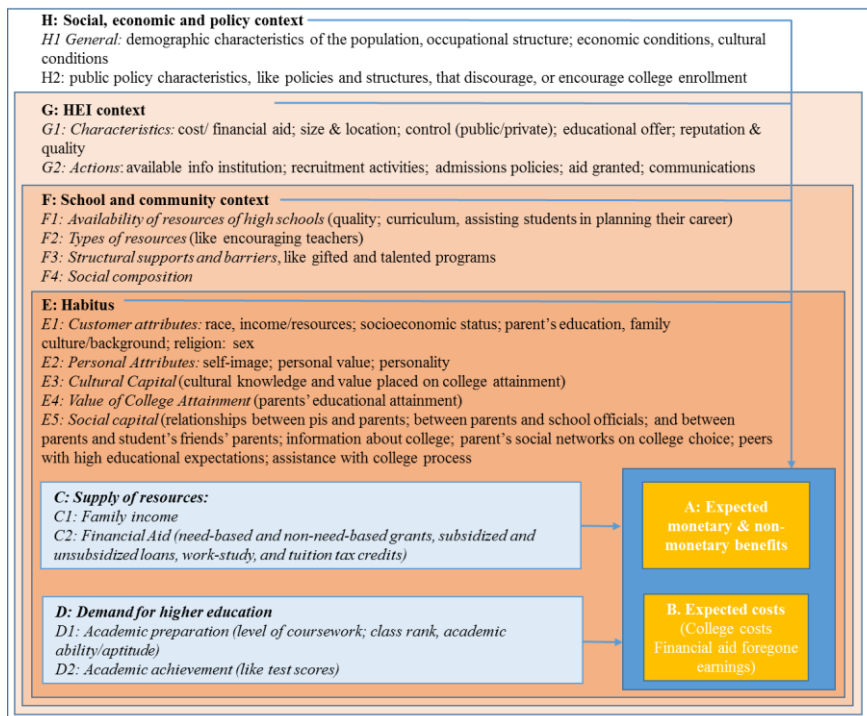


Stage 3 - Evaluation of Alternatives: The concepts by Jackson (1982); Perna (2006); Vrontis et al. (2007); Oliveira & Soares (2016) deal with the evaluation of alternatives. Yet, only Jackson (1982) and Oliveira & Soares (2016) speak of stage-specific evaluation criteria, like college costs, job-benefits/employability, HEI characteristics and influencers. Even though marketing departments of HEI may favor rational decision making and a fixed set of evaluation criteria for more efficient targeting, academics point out that “there is not one set course leading to college enrollment but that multiple routes are possible” (Perna 2006, p. 116).

Consequently, the concept by Perna combines economic and sociological models to the largest extent and puts an evaluation of *expected benefits* and *costs* in focus (Perna 2006, p. 115). Moreover “assessments of the benefits and costs are shaped not only by the *demand for higher education* and *supply of resources to pay the costs* but also by an *individual’s habitus* and, directly and indirectly, by the *family, school, and community context, higher education context, and social, economic, and policy context.*” (Perna 2006, p. 119). On this account, our classification of influencing factors follows the conceptual model by Perna (2006) adding factors which were specifically mentioned in other concepts (s. figure 3).

Figure 3:


Influencing factors on stage „ Search for Information” (based on Chapman 1981, 1986; Hanson & Litten 1989; Hossler and Gallagher 1987; Vrontis et al. 2007; Oliveira & Soares 2016)



Stage 4 - Applying at HEI abroad: Within the fourth stage, PIS will define their application set consisting of universities they are going to apply to (Chapman 1986). In that sense, Cubillo et al. (2006) use the term purchase intention, which “is defined as the intention of the student regarding the destination country as provider of the education service” (Cubillo et al. 2006, p. 104 referring to Peng et al. 2000; Srikatanyoo and Gnoth 2002). According to our research the act of shaping the application set and sending applications will be influenced by: (a) *individual factors*; (b) *location-specific factors of the destination country & city*; (c) *HEI*; (d) *high school* and (e) *student's expectations about the probability of admission* (Chapman 1981, 1986; Hanson & Litten 1989; Cubillo et al. 2006; Vrontis et al. 2007).

Table 1:

Influencing factors at the stage „Applying at HEI abroad” (based on Chapman 1981, 1986; Hanson & Litten 1989; Cubillo et al. 2006; Vrontis et al. 2007)



(a) Individual Factors	(b) Location	(c) HEI	(d) High School	(e) student's expectations about the probability of admission
<p>A1: Student Characteristics: race, income/resources, socioeconomic status, parent's education/job, family; Culture/background, religion, sex, proximity to a university at home country</p> <p>A2: Personal Attributes: class rank, academic ability/aptitude, students/academic performance/achievement, self-image; personal value, benefits sought, personality, lifestyle/social context, personal improvement, ethnocentrism, educational aspirations</p>	<p>B1: Destination Country <i>B1a: General</i> occupational structure; economic conditions, cultural conditions geographical location destination country; cost of living</p> <p><i>B1b: Public Policy Aid</i></p> <p><i>B1c: Country Image</i> cultural proximity social and academic reputation socioeconomic level</p> <p><i>B1d: Influences/Media</i> parents, career, neighborhood, counsellors, peers, communications, college officers</p> <p>B2: City city dimension city image cost of living environment</p>	<p>C1: Characteristics cost/ financial aid; size & location; control (public/private); program availability; proximity, ambiance,</p> <p>C2: Actions: recruitment activities; admissions policies; admit/deny aid granted; communications written information campus visits communications admission/recruiting</p> <p>C3: Institution Image quality of professors institution's prestige international recognition communication facilities on campus</p> <p>C4: Programme evaluation programmes recognition programmes suitability programmes specialization costs and finance</p>	<p>D1: High School Characteristics: social composition; quality; curriculum; programs</p>	

Stage 5 – Confirmation: The 5th stage of the decision-making process is of very high importance for both PIS and HEI: In that stage PIS make their final “buying” decision about the educational product. For HEI, the definitive number (and quality) of freshmen and the final amount of public funding (based on the number of students) will be defined. Despite this importance, only the concepts by Chapman (1981 & 1986); Hanson & Litten (1989); Hossler & Gallagher (1987) and the generic concept by Vrontis et al. (2007) have specifically addressed this

stage within their research. As the generic concept by Vrontis et al. builds also upon models from the 1980-1990, research in that stage needs to be considered as rather outdated. Additionally, there is a broad consensus about the importance of *HEI actions* as an influencing factor within that stage. Yet, Hossler & Gallagher (1987) highlight the limited impact of HEI at this point: "... most institutions are eliminated before they can really 'court' prospective students" (Hossler & Gallagher 1987, p. 218).

2 Empirical studies on decision-making processes of prospective international students

In the second stage of the review process, empirical data on the decision making of PIS was searched and examined to specify the stages or add further influencing factors in the derived theoretical generic model. A prioritization of the identified factors was also of interest within this research stage. The search for available empirical studies was carried out through database research via *google* using the key word '*international student survey*'. The high number of search results was reduced by the use of selection criteria such as the year of publication (no older than five years) or the focus of the survey on the European higher education market. Studies focused on one specific country or region of origin of PIS were eliminated since differences between nationalities were not in focus of our research. Based on these criteria five studies were selected:

Table 4:

Empirical studies on decision making processes of PIS (Hobsons EMEA 2014; QS Enrolment Solutions 2017, 2018; QS Intelligence Unit 2016, 2018)

Author	Year	Title	Sample	Focus of survey
Hobsons EMEA	2014	Beyond the data: Influencing international student decision making	18,393 PIS who had enquired to a UK or Australian higher education institution	decision-making process of international students aspiring to studying abroad
QS Intelligence Unit	2016	What Matters to International Students? Global Overview	1,800 students in 11 countries globally	common motivations and priorities of PIS
QS Enrolment Solutions	2017	International Student Survey Europe	18,706 PIS from 187 countries worldwide,	international student motivation and decision making;

			interested in studying in Europe	communication preferences and used digital channels
QS Intelligence Unit	2018	Applicant Survey 2018: What Drives an International Student Today?	16,560 PIS	motivations and decisions higher education applicants make, linked to the current political and economic context in the US and Europe as host countries for higher education
QS Enrolment Solutions	2018	International Student Survey European Union	22,838 PIS who identified that they are considering studying in the following European countries: Germany, the Netherlands, Sweden, France, Italy, Denmark, Austria, Hungary, Spain, the Czech Republic and Latvia	international student motivation and decision making; communication preferences and used digital channels

2.1 Empirical findings on the decision making process

The stages of the decision making process of PIS were addressed within the studies by Hobsons EMEA (2014) and QS Enrolment Solutions (2017 & 2018). With a focus on PIS enquiring to study in the UK or Australia, a specific order of choice was identified by Hobsons EMEA (2014): “Course, then country, then institution: that is the order of an international student’s decision-making process. Students select a course to study first, then they evaluate the country and only after doing that will they select the institution” (Hobsons EMEA 2014, p. 4). In a later study this fact was also proven for PIS interested in studying in Europe (QS Enrolment Solutions 2017, p.7). The recent *International Student Survey* by QS Enrolment Solutions even strengthens the importance of “subject & course” above the university.

2.2 Empirical findings on influencing factors

Based on the theoretical generic concept of the decision-making process of PIS (s. figure 2), all empirical studies were examined for influencing factors. The most important criteria considered by the students (top 5 or highlighted results by the authors) were taken into further consideration.

Stage 1 - Need recognition & Aspiration to study abroad: Only two of five studies have taken up influencing factors of the first stage. While QS Intelligence Unit (2016) addressed factors motivating PIS, the QS Enrolment Solutions (2018) focused on concerns of PIS to study abroad:

Figure 1:

Influencing factors of students decision to study abroad (QS Enrolment Solutions 2018; QS Intelligence Unit 2016)

Factors Motivating PIS to study abroad	Biggest concerns of PIS about studying abroad:
PIS from developing markets: <ul style="list-style-type: none"> - study as an opportunity to access a better quality of education - Access more specialized and established programs in their chosen field, - contributing to the development of their own country, - get a more internationally famous university on their CV, - standing out in their own national employment market (employability) PIS from developed markets: <ul style="list-style-type: none"> - extended networking opportunities, - improved employment prospects 	#1: Cost of living (80%) #2: Availability of scholarships (69%) #3: Finding accommodation (57%) #4: Safety (57%) #5: Getting a job (54%)

Stage 2 - Search for Information: Hobsons (2014), QS Enrolment Solutions (2017 & 2018) inquired about factors of PIS while searching for and pre-evaluating potential foreign HEI. Although these studies did not put great emphasis on that stage, four factors could be derived: (1) *social media*; (2) *website of HEI*, (3) *response time of HEI after an enquiry* and (4) *agents*. According to QS Enrolment Solutions (2018), 65% of the PIS use social media platforms before they make an enquiry. In 2017, even 85% of the PIS stated they used social media. With regard to the response time, PIS expect at least weekly contacts by the HEI after their enquiry (QS Enrolment Solutions 2017). The use of agents was only addressed by Hobsons (2014), whereby the study underlined that these third parties only play a role for about 10% of the respondents, mainly PIS of South East Asian nationality.

Stage 3 & 4 - Evaluation of alternatives & Applying at HEI abroad: According to the analyzed empirical studies, PIS follow a specific order in making their study choice: course – country – town – university (s. section 3.1). Therefore, it's essential to look at the specific influencing factors of these sub-decision making stages as we may assume they are also relevant criteria for evaluation.

Factors influencing the choice of field of study were addressed by QS Enrolment Solutions (2017 & 2018). Both of these studies emphasized factors such as *teaching quality*, *tuition fees* as well as a *high graduate employment rate*. Among the relevant factors are also criteria such as the *ranking of the course*, *good reputation* as well as *studying with like-minded people*. By comparing both studies, it seems that in the latest report PIS put their personal development more in focus: 72% of PIS state that they chose their course based on their *career planning*. With respect to the high importance of this sub-decision stage further investigations are recommended.

With the exception of QS Intelligence Unit (2016), all studies contained factors influencing country selection. There are different factors of importance between 2014 and 2018. Due to this fact, it is not possible to derive an overall ranking. Instead a set of stated most relevant factors of PIS shall be provided:

Figure 2:

Set of most relevant factors influencing country choice of PIS (Hobsons EMEA 2014; QS Enrolment Solutions 2017, 2018; QS Intelligence Unit 2018)

(1) Quality of education compared to home country/ teaching quality International recognition of qualification of guest country/ well-ranked universities	(2) Country's attitude to international students/ safety of destination country	(3) Costs (affordable cost of living, scholarship/financial aid availability)
(4) Ease of getting a visa	(5) Good graduate employment options	(6) Person-related reasons (cultural interest and lifestyle, institutions I'm interested in are located there)

“The considerations made when choosing a town or city to study in were similar. The top two most important factors were again considerations of teaching quality and the welcoming nature of the location” (QS Enrolment Solutions 2017, p. 9).

All studies included criteria to evaluate and choose foreign HEI. Factors which were identified majorly and are rather highly ranked by PIS include: (1) *funding availabilities (scholarships) & tuition fees*; (2) *academic reputation & ranking (in a student's chosen subject & global preferred) & prestigious brand*; (3) *teaching quality*; (4) *course match to own expectations* and (5) *extent to which international students are welcomed*. Additionally, *entry requirements* were mentioned by PIS

interested in studying in the UK or Australia (Hobsons EMEA 2014) and 45% of PIS considering studying in European countries value *good career service and links to employer* (QS Enrolment Solutions 2018). QS Intelligence Unit (2016) researched that PIS sometimes meet difficulties assessing information they need to reach a thoughtful decision. Due to the fact that PIS will most likely search from abroad, the *Digital Communication by HEI* will influence their choice as well (QS Intelligence Unit 2016).

Recommendations, advice and feedback from others are an important source for PIS while making their decision (QS Enrolment Solutions 2017). In the latest report by QS Enrolment Solutions 60% of PIS stated that they had been affected by influencers at some stage. “45% of them claiming that the *experience of friends and family* has influenced their choice of country to study in.” (QS Enrolment Solutions 2018, p. 17). QS Enrolment Solutions (2017) found, that *parents, career advisors and career counsellors* as well as *friends* are key influencers of PIS.

“The vast majority (73%) will only consider five universities or fewer, this means that a significant proportion (27%) are considering applying to six or more universities underlining the increased competition European universities face from their global competitors” (QS Enrolment Solutions 2018, p. 13). With regard to “Stage 4 - Applying at HEI abroad”, students use and are influenced by *Social Media* (QS Enrolment Solutions 2017, 2018). Furthermore, 68.6% state in the early report to expect at least a weekly *communication by HEI*. This is also expected by 78.7% of the PIS during “Stage 5 – Confirmation” (QS Enrolment Solutions 2017).

When comparing the results from the scoping analysis on theoretical concepts with the empirical results on the decision making process of potential (international) students, the following conclusions can be drawn:

- (1) Both kind of sources must be viewed as useful complements of each single source as both offer advantages but hold limitations in respect to their use in educational marketing as well. Empirical studies provide clear recommendations to marketing departments of HEIs but they do not map the full complexity of the context in which students make their choices. Thus, their marketing measures are based on a simpler image of conditions and may not be perfectly targeted at the needs, wishes, problems etc. of PIS. The advantage of complementary theoretical models, on the other hand, is the mapping of the “full” context of decision making processes. Yet, they do not offer hands-on recommendations for marketers and are simply too complex for daily use in marketing.
- (2) With regard to the first stage “Need recognition & Aspiration to study abroad” empirical studies provide additional value, as they describe motivations, but also concerns of PIS in going abroad in more detail. This also counts for the “Search for Information” stage. Empirical studies are more

recent in respect to (digital) communication behavior and expectations of PIS on the communication to/ from HEIs.

- (3) Empirical studies did not differentiate between “Evaluation of Alternatives” and “Applying at HEI abroad.” Yet they provide clear criteria for choice making, which can be considered relevant evaluation criteria as well. Additionally, these studies provided new knowledge on the size of the application set, the order of choice and the influence of new information and communication technologies. Based on the empirical findings, theoretically derived influencing factors on the decision making process may be prioritized.

3 Summary model & managerial implications for hei

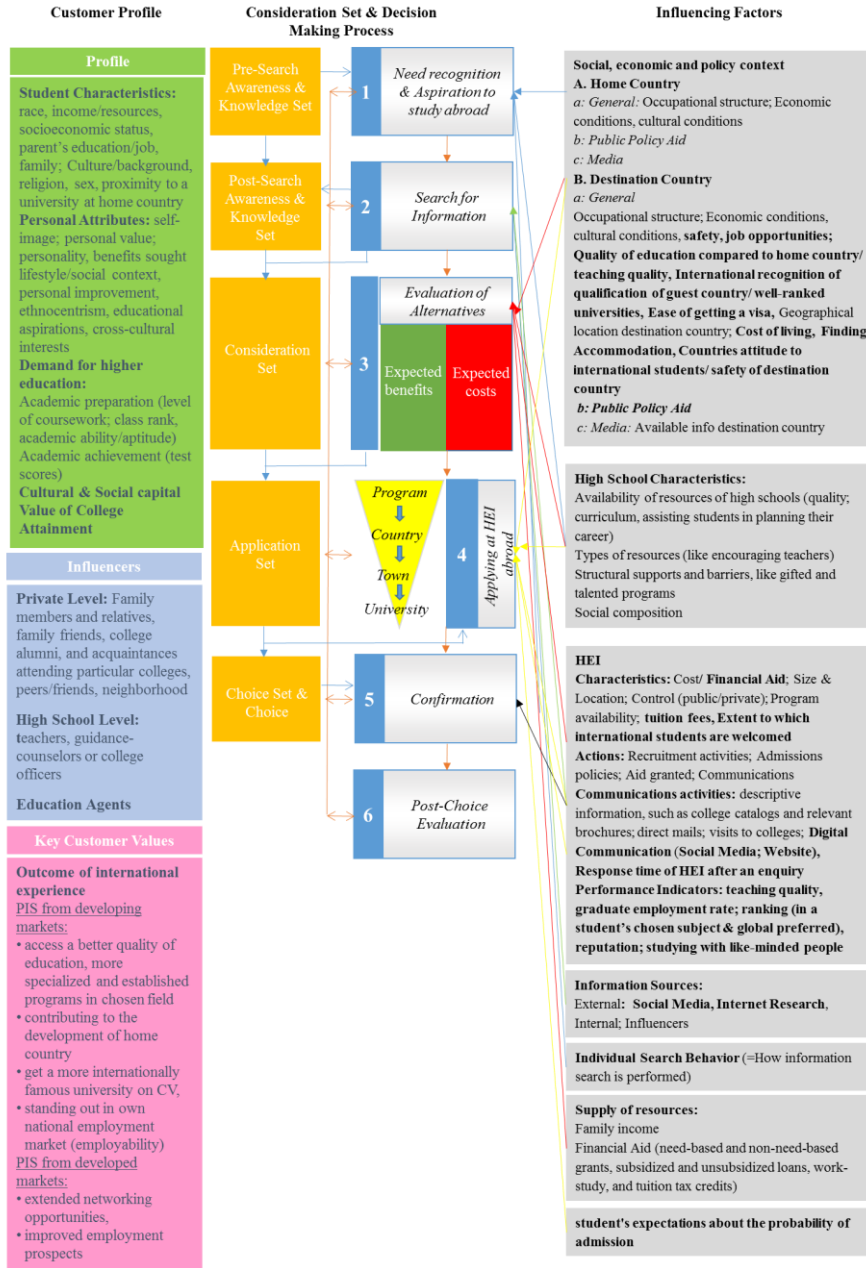
At this point a presentation of our generic concept, which is based on an aggregation of the gained knowledge on theoretical complementary models and empirical findings, is expected. However, our generic concept would be characterized by the same limitations as the existing theoretical concepts: too complex and less practice-oriented for use in HEI-Marketing. For this reason, we have tried to transfer our knowledge on the decision making process and its influencing factors to a practical marketing tool. The *Buying Proforma* by Dibb/Simkin was used as a basic framework as it is “built on the accepted best practice principles from the buying behaviour literature and, over the years, has proved very successful in portraying the nature of the customer challenge” (Dibb and Simkin 2008, p. 42). The *Buying Proforma* integrates (1) a Customer Profile; (2) Buying Center Composition (= people involved in the purchase and their respective roles); (3) Key Customer Values (= factors considered most important by customers); (4) Buying Process Mechanics (= steps involved in the buying process) and (5) the Core Influences (= any factors which have an influence on the buying decision) (Dibb and Simkin 2008).

The developed *Buying Proforma* holds all the relevant information on a general PIS, making choices to study abroad. More relevant influencing factors which were highlighted in the empirical studies are in bold print. We advise marketing departments to use the provided proforma as a starting point and ask to develop target market specific proforma (PIS of a specific region or country in focus) and integrate their findings. Additionally, we hope our idea stimulates creative thinking about communication and service offers to PIS. Not to mention the opportunity to create more efficient marketing activities by considering pull (= marketing measures to create demand for studying abroad) as well as push (=

focus on countries in which conditions support study abroad aspirations of PIS) dynamics in attracting PIS.

Nevertheless, our efforts have to be critically viewed as well. Firstly, there are limitations on the nature of the performed scoping study. Research was focused on English sources only and it will be necessary to investigate the importance of each influencing factor of a student's decision making. With respect to those limitations, we recommend quantitative studies across students from different countries to verify our concept, develop target group-specific buying proforma and to weigh the importance of factors. Secondly, we tried to reduce the complexity of decision-making processes by developing a *Buying Proforma*. To which extent the proposed proforma proves a better practicability also needs to be investigated.

Figure 3: Buying Proforma of PIS



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