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Market research methodology of Study in Estonia

The methodology was compiled by the University of Tartu Social Sciences applied research centre RAKE at the request of Archimedes Foundation.

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BRIEF SUMMARY

Within the framework of the given work, the research methodology of the potential and existing target markets of the Estonian international higher education was developed, which allows comparative assessment of the suitability of target markets for the marketing activities of *Study in Estonia*. In developing this methodology, higher education was considered as a service, the most general benefits of which for the customer (young person, student) are better opportunities in life and higher social status. The more specific analysis object of the methodology is the international (in particular, English) higher education offered by the Estonian universities that is aimed at foreign residents.

The market research methodology developed is based, on one hand, on the theoretical approaches of the international higher education service, which, inter alia, distinguishes pull and push factors of international higher education mobility, and on the other hand, on the classic market analysis methodology, which recommends focusing on the analysis of customers and customer behavior and the potential of the target market. In accordance with these starting points, five analysis components were distinguished in the methodology:

1. Customer analysis
2. Analysis of the potential of the target market
3. Push factors of the target market
4. Pull factors of Estonia, as the provider of international higher education service, in general and in relation to the target market
5. Coherent factors between Estonia and the target market - for the sake of analytical clarity, in addition to pull and push factors

For the evaluation of each component, relevant criteria have been selected, the values of which jointly describe the content of the component. The selection of the criteria are based on: substantive reasoning, the existence and/or production simplicity of indicators and related data, the limitations of the analyzes budget; a reasonable proportion between the general criteria and the criteria related to international higher education. In total, 40 criteria were distinguished for the purpose of evaluating target markets.

For each criterion: an evaluation question or questions were formulated which have to be answered as a result of the market research; the most suitable answering method was determined which can also be complemented by alternative methods while conducting each specific market research; quantitative indicators to be measured in the context of answering the evaluation questions were defined; the main comparative data sources were described; the basis for evaluating the criterion, i.e. the interpretation rules regarding the component, was described; the quantification logic of the evaluation was presented as a table; the criterion weight was determined in the component evaluation.

The methodology creates prerequisites for fulfilling one of the central objectives of market research, which is, **to evaluate the suitability of potential target markets for marketing the service and, based on its evaluation, to make a choice between target markets**. Resulting from the initial task, the methodology does not equally support the fulfillment of the second important task of market researches, which is, to provide knowledge about the selected target markets and the purchasing behavior of their typical customers. Also, a methodology that focuses on comparative evaluation of target markets, is not compatible with the analysis task of a competitive situation.Carrying out such an analysis would require the development of a separate methodology.

The given methodology is presented in a form that is suitable for conducting comparative analysis about the groups of target markets (countries), whether they are potential new target markets or a comparison of existing target markets with potential alternative target markets. The result of the implementation of

the methodology is the ranking of the target markets analyzed according to the suitability of the target markets as the Estonian international higher education markets.

The 40 criteria contained in the methodology are divided according to the analytical components as follows:

Component	Criterion	Criterion weight
Customer analysis: customer behavior of the target market consumers of the higher education service		
	Criterion 1.1. The importance of higher education as an educational choice	1
	Criterion 1.2. Conformity of the sectoral preferences of higher education with the priority needs of the Estonian labor market	2
	Criterion 1.3. The target market students' interest in participating in the mobility of international higher education	2
	Criterion 1.4. Students' international mobility	3
	Criterion 1.5. Conformity of the sectoral preferences of international higher education with the priority needs of the Estonian labor market	2
	Criterion 1.6. The proximity of the students' territorial preferences of international higher education to Estonia	1
	Criterion 1.7. The suitability of value proposition of the Estonian universities for student candidates	3
	Criterion 1.8. The efficiency of marketing activities for the target market customers	3
	Criterion 1.9. Preparedness/suitability of the target market students for studying in Estonia	3
The potential of the target market		
	Criterion 2.1. Scope of the labor market requiring/expecting higher education	2
	Criterion 2.2. Lack of educated workforce	1
	Criterion 2.3. The total number of youth on the target market joining higher education institutions	1
	Criterion 2.4. Number of matriculants who join higher education institutions	3
	Criterion 2.5. The size of the student body that is interested in international higher education	2
	Criterion 2.6. Number of students who study in foreign countries	3
Push factors		
	Criterion 3.1. Outflow from the country	2
	Criterion 3.2. Socioeconomic exclusion of youth	1
	Criterion 3.3. Minority exclusion and inequality in society	1
	Criterion 3.4. The weakness of the competitiveness of higher education	3
	Criterion 3.5. Lack of resources in higher education	1
	Criterion 3.6. Students' economic situation	2
	Criterion 3.7. The limitedness of providing English higher education on the target market	3
Estonia's pull factors regarding the country of destination		
	Criterion 4.1. Estonia's recognition and positive reputation	2
	Criterion 4.2. Interest in Estonia	1

	Criterion 4.3. The quality of higher education in Estonia	3
	Criterion 4.4. Lower living expenses in Estonia	2
	Criterion 4.5. Favorable price of international English higher education in Estonia	2
	Criterion 4.6. The interest of youth in the country of destination towards Estonian higher education	3
	Criterion 4.7. Graduate students and exchange students of the target market in the Estonian higher education institutions	3
	Criterion 4.8. Satisfaction of the target market students with university studies in Estonia	2
	Criterion 4.9. The attractiveness of the Estonian labor market for target market employees	1
Coherent factors between the target market and Estonia (higher education system)		
	Criterion 5.1. The existence of ethnic communities in Estonia	1
	Criterion 5.2. The intensity of transnational migration and travelling	2
	Criterion 5.3. Mutual cultural proximity of societies	1
	Criterion 5.4. Foreign political and geopolitical connectivity of countries	2
	Criterion 5.5. Proximity and availability of countries by transport	2
	Criterion 5.6. Economic relations between countries	1
	Criterion 5.7. Strategic relevance of the target market and prior marketing activities on target markets	3
	Criterion 5.8. International co-operation in higher education	3
	Criterion 5.9. The readiness of youth on the target market to participate in international higher education	2

1. THE INITIAL TASK AND THE BACKGROUND OF THE WORK

The task of this work is to develop a market research methodology to be used to assess the market and competition conditions of countries of destination within the framework of the activities of "Study in Estonia".

"Study in Estonia", the cooperation platform of international introduction of the Estonian higher education, is the framework for the activities to be conducted by the Estonian higher education institutions, Archimedes Foundation and other cooperation partners, the purpose of which is to introduce Estonia as a great place for studying, working and self-realization in the world. The activities are based on the international introduction strategy of Estonian higher education 2015-2020. Within this framework, it is planned to carry out market research in the destination countries of foreign marketing of the Estonian higher education. This report presents the methodology that has been developed as a result of the work which can be used to carry out market research (market analyzes) in the destination countries of foreign marketing of the Estonian higher education.

In developing the methodology for conducting market research, the authors of the work have taken into account the preparatory project for the development of the methodology prepared by Archimedes Foundation and higher education institutions: "Conducting market research of foreign marketing of higher education - criteria and potential countries of destination" (Padar, 2016), which presents 14 criteria of evaluating the target market along with the evaluation of the importance of the criterion. In developing the methodology, the relevance of all the criteria contained in the project was evaluated regarding the general solution of the methodology (components of the target market analysis), and when necessary, they were specified and further developed and therefore, were added into the suitable group of components of market research methodology.

The project also includes an aggregate chart of the priority countries of destination which was formed by summarizing the proposals from the involved stakeholders. This list was used as a background to pre-evaluate the feasibility of the market researches to be conducted on the basis of the methodology in the context of the availability of data. In its content, the methodology offers a solution which is so-called "state-blind" - this is applicable for analyzing every state as a target market of international higher education.

2. INTERNATIONAL HIGHER EDUCATION SERVICE AND ITS THEORETICAL CONCEPTS

In developing this methodology, higher education is regarded as a service and positional good (Hirsch 1976), the most general benefits of which for the customer (young person, student) are better opportunities in life and higher social status. (Marginson, 2006: 3-4). This results in the need for marketing higher education and conducting market analysis of target markets. Within this approach, the task of the

market research is to evaluate the potential of target markets and understand the needs, interests and desires of the existing and potential target markets, in order to improve the offered product or service in such a way that it is suitable for the target group. The scientific literature confirms the positive relationship between the success of a product/service and the possession of information about potential consumers, in other words - the more knowledge there is about the target group, the more successful the selling of a product or service is to the target group.

Based on the initial task, the service is more precisely defined than the international higher education service offered by the Estonian higher education institutions which is targeted to foreign residents. Most clearly, it differs from the higher education service (only) targeted to the domestic market based on the study language - study language of the international higher education in Estonia is generally English. As regards to the service content, international higher education service is divided into degree and exchange studies; bachelor's, master's and doctoral studies; studies in different fields, directions and groups. All of these are the target group for the marketing activities of "Study in Estonia". Therefore, the target group of "Study in Estonia" is defined very broadly and there are several horizontal aspects within each target group that should be taken into account when planning marketing activities.

The provision of international higher education service takes place in different forms today - in addition to student mobility, it is increasingly being done in the forms of mobility of programmes (twinning programmes, MOOC, etc.) and study vacancies (branches) (Kosmützky and Putty, 2016: 9). Considering the provision of international higher education service by the Estonian higher education institutions, it is still reasonable to assume, when developing the methodology, that the target markets are being marketed the higher education service which is territorially provided in the Estonian higher education institutions for foreign residents. A prerequisite for the sale of international higher education service is the student mobility between countries. In line with this prerequisite, the target markets have been defined in the market research methodology as countries of destination.

The basis of classic researches of the analysis of international higher education service (e.g McMahon, 1992; Mazzarol and Soutar, 2002) has been the conceptual idea of migration researches to address the **pull factors** of the country of destination and **push factors** of the source country in order to clarify and assess the volume of migration (including the migration related to international higher education) (Lee, 1966; see Wilkins et al., 2012: 417-18). Important pull factors of international higher education have been specified to be, for example, education quality, reputation of the country and university, rating of the universities, additional career opportunities (Wilkins and Epps, 2011), and favorable living expenses (Lanyi and Pozsgai, 2016). Some of the most efficient push factors the empirical studies have highlighted, are lower quality of education in home country, preference of international education by employers, weak level or lack of specific fields and specialties in home country, political and economic problems in home country (Wilkins and Epps, 2011), but also, the absence of study vacancy in home country due to high competition (Cheung et al. 2010).

In contemporary researches, international student mobility is conceptualized as a decision-making process that involves setting up a problem by a student candidate, seeking information, evaluating alternatives, making the purchase decisions, and assessing the purchase decision (Wilkins et al., 2012: 415). In addition to the general push factors of target markets and the pull factors of the higher education system providing the service, the results of the research also show the importance of micro-level factors that affect the purchase decision - personal preferences, influence by significant "others", cultural similarities, proximity to home, academic capability, etc. (Wilkins et al., 2012: 418; Kosmützky and Putty, 2016: 9). One of the research topics that is becoming increasingly important is the branding of

international higher education service (Kosmützky and Putty, 2016: 21-22). Thereat, empirical studies have found that from the students' point of view, the question is generally not about the reputation of a specific university (except for the world's top universities), but the reputation of the country and its higher education system. (De Haan, 2015; Cheung et al. 2011; Hipsher and Bulmer, 2016: 143-148). Therefore, it is important to assess the reputation of the brand of Estonia as a whole as part of the pull factors.

3. THE GENERAL SOLUTION TO CONDUCTING MARKET RESEARCH METHODOLOGY

The basis of the market research methodology of international higher education service presented in the given report, are on the one hand, the theoretical approaches of the international higher education service, which, inter alia, distinguishes pull and push factors of the international higher education mobility (see above), and on the other hand, classic market analysis methodology, which recommends focusing on the analysis of customers and customer behavior and the potential of the target market (e.g Lehmann and Winer, 2007).

In accordance with these starting points, the methodology distinguishes the following **components of the analysis**:

1. Customer analysis
2. Analysis of the potential of the target market
3. Push factors of the target market
4. Pull factors of Estonia, as the provider of international higher education service, in general and in relation to the target market
5. Coherent factors between Estonia and the target market - for the sake of analytical clarity, in addition to pull and push factors

For the evaluation of each component, relevant **criteria have been selected, the values of which jointly describe the content of the component**. **The selection of the criteria are based on:** substantive reasoning, the existence of data and simplicity of production, the limitations of the analyzes budget; a reasonable proportion between the general criteria and the criteria related to international higher education.

For each criterion:

- an evaluation question or questions are formulated which have to be answered as a result of the market research;
- the most suitable answering method is determined which can also be complemented by alternative methods while conducting each specific market research;
- quantitative indicators to be measured in the context of answering the evaluation questions are defined;
- the main data sources are described;
- the basis for evaluating the criterion, i.e. the interpretation rules regarding the component, is formulated;
- the quantification logic of the evaluation is described;
- the criterion weight is determined in the component evaluation.

The **assessment of the suitability of the target market** based on the criteria takes place in accordance with the general logic of the component: high(er) market potential, the strength of the pull and push factors, the strength of the connection between Estonia and the target market, lower competition on the target market, the relative strength of Estonia in comparison with its competitors - these are all the characteristics of better suitability.

The methodology is presented in a form that is suitable for conducting an analysis for the target groups of target markets (countries), whether they are potential new target markets or a comparison of existing target markets with potential alternative target markets. The result of the implementation of the methodology is the ranking of the analyzed target markets according to the suitability of the target markets as the international higher education markets of Estonia. At first, for preparing the ranking, each criterion will be evaluated independently based on the content of the defined indicators for the evaluation of the criterion. Mainly, two types of indicators are used: **indicators assessing the development trend of the target market** and the **indicators comparing the target markets**.

In case of the indicators assessing the development trend, the evaluation object is the trend of change. In case of a positive change - positive in relation to the marketing possibilities of the higher education of Estonia - the target market is assigned a value of 3, and in case of a negative change it is assigned a value of 1. In the absence of a change - which is expected to occur in rare cases - the value is 2. It is advisable to describe changes over the medium-length period, i.e over the past 5 years. The table below describes the logic of assigning the quantitative score to the values of the trend indicator (see 4.1.) of the criterion 1.1. (The importance of higher education as an educational choice). The trend is evaluated over the last five years, in case the data is available in the database - for these target markets for which the data is available for the year 2015, the period of 2011-2015 is evaluated, for other cases the period of 2010-2014 is evaluated. Since there is no data for Russia for the 5-year period, then the change in the period of 2011-2014 is described and evaluated.

Table 1. Sample table for evaluating the values of the first indicator of the criterion 1.1. (The importance of higher education as an educational choice): Change in the rate of attendance in third-level education 2010-2015

Country	2010	2011	2012	2013	2014	2015	5 year trend	Score
Belarus	79,42	85,7	90,44	91,03	88,86	87,94	increasing	3
Ukraine	81,93	83,32	82,13	80,07	82,31		increasing	3
Russian Federation		76,5	76,11	78	78,65		increasing	3
Lithuania	85,66	80,76	77,23	71,97	68,53		decreasing	1
Latvia	70,43	67,28	65,56	66,95	67,04		decreasing	1
Kazakhstan	46,05	48,47	51,32	50,13	48,48	46,04	decreasing	1
Armenia	50,64	51	43,91	43,31	44,25	44,31	decreasing	1
Moldova	38,15	39,45	40,11	41,28	41,49	41,21	increasing	3
Georgia	28,92	31,18	29,21	34,75	39,18	43,42	increasing	3
Azerbaidjan	19,26	19,65	20,44	21,44	23,16	25,48	increasing	3

Most of the indicators have been formulated in such a way that the basis of the evaluation of their values is the comparison between the values of the target markets covered by the study. To assign quantitative scores to the target market, they are first ranked based on the indicator's values. Therefore, the place in the ranking is generalized on the basis of quartiles in such a way that the target markets which are comprised in the first quartile (in relation to the marketing opportunities of the Estonian higher education of the highest values) are assigned a score of 3, the target markets which are comprised in the intermediate quartiles (2nd and 3rd quartile) are assigned a score of 2, and the target markets which are comprised in the last quartile are assigned a score of 1. Insofar as the possible number of the target

markets to be analyzed is not large, the distribution of scores can also be presented in the form of a table (see Table 2).

Table 2. Table for converting the ranking position of target markets into quantitative scores

Position of target markets in the ranking	Quantitative score depending on the number of target markets involved in the study										
1	3	3	3	3	3	3	3	3	3	3	3
2	2	2	2	3	3	3	3	3	3	3	3
3	1	2	2	2	2	2	2	2	3	3	3
4		1	2	2	2	2	2	2	2	2	2
5			1	1	2	2	2	2	2	2	2
6				1	1	2	2	2	2	2	2
7					1	1	2	2	2	2	2
8						1	1	2	2	2	2
9							1	1	1	2	2
10								1	1	1	2
11									1	1	1
12										1	1
13											1

Such a conversion is necessary to allow a homogeneous averaging of the values of trend indicators and comparison indicators, regardless of the number of target markets involved in the analysis. By applying the conversion table to the criterion 1.1. example and by taking the year, which provides data for all the target markets (2014), as the evaluation object, the scores are divided by countries as follows (see Table 3).

Table 3. Sample table for evaluating the values of the second indicator of the criterion 1.1. (The importance of higher education as an educational choice): Change in the rate of attendance in third-level education 2010-2015

Country	2010	2011	2012	2013	2014	2015	Place in the ranking of the countries to be analyzed	Score
Belarus	79,42	85,7	90,44	91,03	88,86	87,94	1	3
Ukraine	81,93	83,32	82,13	80,07	82,31		2	3
Russian Federation		76,5	76,11	78	78,65		3	2
Lithuania	85,66	80,76	77,23	71,97	68,53		4	2
Latvia	70,43	67,28	65,56	66,95	67,04		5	2
Kazakhstan	46,05	48,47	51,32	50,13	48,48	46,04	6	2
Armenia	50,64	51	43,91	43,31	44,25	44,31	7	2
Moldova	38,15	39,45	40,11	41,28	41,49	41,21	8	2
Georgia	28,92	31,18	29,21	34,75	39,18	43,42	9	1

Azerbaidjan	19,26	19,65	20,44	21,44	23,16	25,48	10	1

The scores of the indicators, which number may vary in case of different criteria, will be averaged by criteria. In case of the criterion 1.1. it is necessary to average the scores of one trend indicator and one comparison indicator according to the logic described in Table 4.

Table 4. Table for quantitative evaluation of the criterion 1.1. (The importance of higher education as an educational choice)

	Quantitative evaluation		
Indicator	**3**	**2**	**1**
Trend of the attendance rate	increasing	unchanged	decreasing
The attendance rate in comparison with the other countries being analyzed	1st quartile	2nd and 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Using the data from the tables 1 and 3, it appears that among the countries included in the sample, the best scores by the criterion 1.1. would be obtained by Belarus and Ukraine.

Table 5. The result of the quantitative evaluation of the criterion 1.1. example (The importance of higher education as an educational choice)

Country	The score of trend indicator	The score of comparison indicator	Average score
Belarus	3	3	3
Ukraine	3	3	3
Russian Federation	3	2	2,5
Lithuania	1	2	1,5
Latvia	1	2	1,5
Kazakhstan	1	2	1,5
Armenia	1	2	1,5
Moldova	3	2	2,5
Georgia	3	1	2
Azerbaidjan	3	1	2

For a more balanced evaluation of the components of the analysis, each criterion is assigned a weight, which characterizes the significance of the criterion in the corresponding component. Quantitative weights are determined on three scales: very important - 3; medium importance - 2; less important - 1. To calculate the total value of a component, the values of the criterion are multiplied by weights and then averaged. In case of criterion 1.1., the value is 1 and the value of the weighted score for Belarus and Ukraine is 3. By using the randomly generated values for other criteria, Table 6 describes the logic for calculating the score value of the component of customer analysis for one target market.

Table 6. Example of calculating the values of the component of customer analysis

Criterion	Criterion weight	Score of the target market	Weighted score
1.1. The importance of higher education as an educational choice	1	3	3
1.2. Conformity of the sectoral preferences of higher education with the priority needs of the Estonian labor market	2	2,5	5
1.3. The target market students' interest in participating in the mobility of international higher education	3	2	6
1.4. Students' international mobility	3	1	3
1.5. Most popular fields in international higher education	2	2,5	5
1.6. Most popular countries of destination	1	2	2
1.7. The suitability of value proposition of the Estonian universities for student candidates	3	2	6
1.8. The efficiency of marketing activities for the target market customers	3	1	3
1.9. Preparedness/suitability of the target market students for studying in Estonia	3	2	6
			4,33

In turn, the total values of the components are summarized (assuming that the importance of the components is equivalent when evaluating the suitability of the target market). **The result is the ranking of target markets which allows to make a choice among the target markets.**

For comparing target markets by criteria, the first choice is to use data in international databases, taking into account the conformity of the content of the indicators of these databases with the measurement task of the developed methodology. In case there is no data in the best-coverage international database (including benchmarking reports of conducted in the form of international questionnaires) about some indicator of the target market, the comparative tables are completed with the data from national statistics or alternative data bases. This, of course, presumes the uniformity or close proximity of data definitions. In the absence of proximate data, in the sense of data definitions, the indicator in case of calculating the average value of the criterion or a component of the criterion is left out.

The data recommended to be used within the framework of the methodology are divided, in general, as follows:

International comparative data

- Statistics collected by international organizations - UNESCO, ILO, World Bank, OECD, Eurostat; allows comparisons and ensures the "translation" of data; the same and more precise data are generally also available in national statistics databases;

- International benchmarking - Eurostudent V; The International Student Barometer (ISB), also the data collected for commercial purposes which are available about the selected countries (Estonia is often not included in the selection) - allow the comparison and also complement the national statistics in essence, such as Country Brand Index, Country RepTrak; it is possible to use free public general reports, more detailed data are available for a fee;
- International databases - these give more or less precise indications - university rankings, international higher education (e.g BachelorsPortal, MastersPortal) or job-seeking portals that give a partial comparative overview about the situation; a sufficient selection of the databases is important;
- Reports of international organizations and programmes - primarily on higher education in the European Union (ERASMUS +, etc.);
- Visiting statistics for international portals - general data about countries are assembled in, for example, The Digital Country Index report.

The list of countries to be covered in international statistics databases and researches varies, and does not always include all the potential target markets. In this case, the research questions should be answered by collecting additional data - starting with national statistics and public information.

National data on the target market - normally presumes the involvement of the person who speaks the national language of the target market in conducting the market research:

- National statistics - available in all countries, generally also an English and/or Russian version of the database; in general, there are more data in comparison with international statistics;
- National researches conducted on the target market - the usage usually requires the involvement of the person who speaks the national language in conducting the analysis; English and Russian summaries are also partially available;
- National databases - e.g provision of jobs, it is necessary to determine the population and selection of databases; in large countries, there are a lot of labor market portals, for example, from which a well-informed selection has to be made;
- National legislation and other documents (including university regulations) - allow to describe different parameters of the higher education system (eg tuition, scholarships, support services);
- The websites of state institutions and universities, official reports - allow to describe different aspects of the provision and marketing of higher education services, including English curricula, the number of foreign students, the marketing activities of competitors in the countries of destination.

Data about the Estonian international higher education and marketing:

- The activity and performance reporting by the state institutions (Ministry of Education and Research, Enterprise Estonia (EAS), Archimedes Foundation) and universities - allow to describe different aspects of providing and marketing the higher education service, including English curricula, number of foreign students, drop-outs, marketing activity in the countries of destination;
- Visiting statistics of Estonian portals - both general ee-domain visits by countries and more specific visits can be measured in relation to the provision of Estonian international higher education (Study of Estonia; DreamApply, university study pages in English).

When comparing target markets, it is recommended to use the latest data in the databases - that is, on the basis of the last year for which data are available. If data for the last year are available only for individual countries at the time of conducting the analysis, it is better to use the data that is one year older which is available for all or most of the countries of destination. When evaluating trends, the recommended time horizon is the last 5 years for which data are available.

The market research methodology also presumes the production of small-scale original data when conducting the research, in particular by fulfilling the short evaluation questionnaires in the form of e-inquiry.

4. MARKET RESEARCH COMPONENTS AND CRITERIA

1. Customer analysis: customer behavior of the target market consumers of the higher education service

Based on the general marketing theory (see Lehmann and Winer, 2007), the customer analysis should answer the following questions: Who buys international higher education?; What do they buy and how is it used?; Where do they buy it?; How do they buy it?; How do they make choices?; Why is the product preferred?; What are the customer values?; What is the attitude towards marketing? Resulting from the initial task of the methodology, questions are presented and answers are evaluated about customer behavior on target markets as a whole - as summarized and average values. When comparing target markets, the questions and answers about customer behavior are deemed to be suitable, which describe the tendency or propensity of the subject of the target market (potential customer, young person) to buy the higher education service, including international higher education service, to participate in international higher education mobility, to make sectoral choices, but also to buy the international higher education service offered by the Estonian higher education system, and suitability with the Estonian labor market. These target markets where the purchase of international higher education service is relatively (i.e in comparison with other target markets in relation to the average of the state groups) more likely, should be preferred. In case of sectoral focus of the analysis, these study fields are preferred which are preferred by the youth in the country of destination.

Criterion 1.1. The importance of higher education as an educational choice

Evaluation question: How important is higher education as an educational choice among the youth in the country of destination?

Answering method: comparative statistics about the educational choices made during the previous period[1] must be used

Suitable indicators: rate of participating in third-level education; rate of participating in higher education; rate of participating in master's level

Comparative data sources:

UNESCO http://uis.unesco.org/indicator/edu-part-er-ger

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[1]   Generally the countries are being compared based on the most recent data (i.e based on the last year for which data is available in the databases). When comparing trends, the recommended time horizon is the last 5 years for which data are available (see also Chapter 3).

Data: Gross enrolment ratio by level of education between 2010 and 2015 - UNIT OF MEASURE [Percentage], SEX [Total], EDUCATION CATEGORY [Total], LEVEL OF EDUCATION [Tertiary education][2]

OECS statistics http://stats.oecd.org/

Data: Enrolment rate by age group: Bachelor's or equivalent level (ISCED2011 level 6); Master's or equivalent level (ISCED2011 level 7); Doctoral or equivalent level (ISCED2011 level 8)

Eurostat http://ec.europa.eu/eurostat/data/database

Data: Students in tertiary education by age groups - as % of corresponding age population (educ_uoe_enrt07); Students in tertiary education - as % of 20-24 years old in the population (educ_uoe_enrt08)

Bases for evaluating the criterion: the trend of the indicator values in the country of destination - increasing trend of the rate of participating in higher education is more valued; comparison of the values of the country of destination with other countries of destination to be analyzed, i.e alternative target markets - these target markets where higher education is considered to be more important educational choice in comparison with other target markets to be analyzed, are more valued (see Chapter 3).

Table 7. Table for quantitative evaluation of the criterion 1.1. (The importance of higher education as an educational choice)

	Quantitative score		
Indicator	**3**	**2**	**1**
Trend of the attendance rate	increasing	unchanged	decreasing
The attendance rate in comparison with the other countries being analyzed	1st quartile	2nd and 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: low (1)

Criterion 1.2. Conformity of the sectoral preferences of higher education with the priority needs of the Estonian labor market

Evaluation question: What is the percentage of the students[3] of the country of destination whose sectoral preferences are natural science, mathematics and information technology (IT) (matriculants, students, graduates)?

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[2]   Here and thereafter, the original language definitions are used when referring to the indicators included in the international comparative databases.

Answering method: comparative statistics and the results of international benchmarking (especially Eurostudent V) about the educational choices made, must be used

Suitable indicators: the percentage of the matriculants from all the students of the study field (by educational levels) - preferred indicator; in case there are no data about some states to be analyzed, the following alternative indicators must be used: the percentage of the students from all the students of the study field (by educational levels); the percentage of the graduates from all the students of the study field (by educational levels)

Comparative data sources:

UNESCO http://uis.unesco.org/indicator/edu-compl-grad-field

- Distribution of tertiary graduates by field of education between 2009 and 2014; SEX [Total], FIELD OF EDUCATION [Agriculture; Education; Engineering, Manufacturing and Construction; Health and Welfare; Humanities and Arts; Science; Services programmes; Social Sciences, Business and Law programmes
- Percentage of students in tertiary education enrolled in field of education
- Distribution of graduates in tertiary education by field of education
- Percentage of graduates from tertiary education graduating from field of education

The World Bank DataBank: Education Statistics http://databank.worldbank.org - UNESCO Institute for Statistics

Eurostudent V (2016): http://database.eurostudent.eu/

- C 4 Field of study by characteristics of students (I) - Students' enrolment in various fields of study by study-related characteristics- only BA students: education; humanities and arts; social sciences, business, law; (natural) science; engineering, manufacturing, construction; agriculture; health and welfare; services
- C 4 Field of study by characteristics of students (I) - Students' enrolment in various fields of study by study-related characteristics- only MA students: education; humanities and arts; social sciences, business, law; (natural) science; engineering, manufacturing, construction; agriculture; health and welfare; services
- C 5 Field of study by characteristics of students (II) - Students' enrolment in various fields of study by socio-demographic characteristics - only BA students
- C 5 Field of study by characteristics of students (II) - Students' enrolment in various fields of study by socio-demographic characteristic- only MA students

OECD statistics http://stats.oecd.org/

- Enrolment by field and by country of origin: Education; Sciences and engineering; Humanities and arts; Social sciences, business and law; Education, humanities and social sciences; Science, mathematics and computing; Engineering, manufacturing and construction; Agriculture and

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[3]   In sectoral analysis, when evaluating the countries, for example, only based on the suitability as the target markets for international education of the Estonian universities of art and/or music, the basis of the evaluation is the percentage of students in the corresponding study field.

veterinary; Health and Welfare; Services; In total and from elsewhere in the world – about the OECD states

Bases for evaluating the criterion: the trend of the indicator values in the country of destination - the increase of the proportion of the students in natural science, mathematics and IT [Science] is more valued; comparison of the values of the country of destination with other countries of destination to be analyzed, i.e alternative countries of destination - the target markets whose proportion of students in natural science, mathematics and IT [Science] is higher compared with others.

Table 8. Table for quantitative evaluation of the criterion 1.2. (Conformity of the sectoral preferences of higher education with the priority needs of the Estonian labor market)

	Quantitative score		
Indicator	**3**	**2**	**1**
Trend of change in proportion	increasing	unchanged	decreasing
Proportion in comparison with the other countries being analyzed	1st quartile	2nd and 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: medium (2)

Criterion 1.3. The target market students' interest in participating in the mobility of international higher education

Evaluation questions: How high is the proportion of the students of the country of destination who would like to acquire higher education in foreign countries and/or study in an international curriculum?

Answering method: the results of international benchmarking (primarily Eurostudent V) about the intentions of students must be used

Suitable indicators: the proportion of students who wish to acquire higher education in foreign countries

Comparative data sources:

Eurostudent V (2016): http://database.eurostudent.eu/ (see also previous research of Eurostudent)

- K 1 Enrolment abroad by characteristics of students (I): students who have not been enrolled abroad but plan to go, % - all students, bachelors, masters;

Bases for evaluating the criterion: the trend of the indicator values in the country of destination - the target markets whose proportion of the students who have the interest in participating in the mobility of international higher education is higher, are more valued; comparison of the values of the country of destination with other countries of destination to be analyzed, i.e alternative target markets - the target markets whose proportion of the students with the interest of higher education mobility (separately bachelor's and master's students) is higher compared to others, are more valued.

Table 9. Table for quantitative evaluation of the criterion 1.3. (The target market students' interest in participating in the mobility of international higher education)

	Quantitative score		
Indicator	3	2	1
Trend of change in proportion	increasing	unchanged	decreasing
Proportion in comparison with the other countries being analyzed: bachelor's students	1st quartile	2nd and 3rd quartile	4th quartile
Proportion in comparison with the other countries being analyzed: master's students	1st quartile	2nd and 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Weight of the criterion in the overall assessment of the component: medium (2)

Criterion 1.4. Students' international mobility

Evaluation questions: How high is the proportion of the youth of the country of destination who study in universities abroad?

Answering method: comparative statistics on the educational choices must be used

Suitable indicators: the percentage of students studying in foreign countries from all the students (by educational level) in comparison with the alternative target markets; the proportion of the students acquiring a degree in foreign countries in comparison with the alternative target markets

Comparative data sources:

UNESCO http://uis.unesco.org/en/uis-student-flow

- Outbound mobility ratio
- Gross outbound enrolment ratio

The World Bank DataBank: Education Statistics http://databank.worldbank.org/ - UNESCO Institute for Statistics

- Net flow of internationally mobile students (inbound - outbound), both sexes (number)
- Net flow ratio of internationally mobile students (inbound - outbound), both sexes (%)
- Outbound mobility ratio, all regions, both sexes (%)

Eurostudent V (2016): http://database.eurostudent.eu/

- K 1 Enrolment abroad by characteristics of students (I): students who have been enrolled abroad, % (all, bachelors, masters)

Eurostat

- Mobile students from abroad enrolled by education level, sex and field of education
- Mobile students from abroad enrolled by education level, sex and country of origin
- Distribution of mobile students from abroad enrolled at education level by sex and field of education
- Degree mobile graduates from abroad by education level, sex and field of education
- Degree mobile graduates from abroad by education level, sex and country of origin

ERASMUS+

- Erasmus+ Programme Annual Report 2015; 2014

Bases for evaluating the criterion: higher proportion of the students studying in foreign countries and its growing trend refers to greater tendency of the students of the target market to choose international higher education - both are the characteristics of target markets that are more valued

Table 10. Table for quantitative evaluation of the criterion 1.4. (Students' international mobility)

	Quantitative score		
Indicator	**3**	**2**	**1**
Trend of change in proportion	increasing	unchanged	decreasing
Proportion in comparison with the other countries being analyzed	1st quartile	2nd and 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Weight of the criterion in the overall assessment of the component: high (3)

Criterion 1.5. Conformity of the sectoral preferences of international higher education with the priority needs of the Estonian labor market

Evaluation question: What is the percentage of the students of the country of destination whose sectoral preferences are natural science, mathematics and information technology (IT)[4] (matriculants, students, graduates)?

Answering method: comparative statistics and the results of international benchmarking (especially Eurostudent V) about the educational choices made, must be used

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[4]   The basis for evaluation in sectoral analysis is the percentage of students in a specific field.

Suitable indicators: the percentage of the students from all the students of the study field (by educational levels); the percentage of the matriculants from all the students of the study field (by educational levels); the percentage of the graduates from all the students of the study field (by educational levels)

Comparative data sources:

Eurostudent V (2016): http://database.eurostudent.eu/ (vt ka varasemad Eurostudent uuringud)

- K 4 Enrolment abroad by field of study – education; humanities and arts; social sciences, business, law; (natural) science; engineering, manufacturing, construction; agriculture; health and welfare; services

Bases for evaluating the criterion: the trend of the indicator values in the country of destination - the increase of the proportion of the students in natural science, mathematics and IT [Science] is more valued; comparison of the values of the country of destination with other countries of destination to be analyzed - the target markets whose proportion of students in natural science, mathematics and IT [Science] is higher compared with others.

Table 11. Table for quantitative evaluation of the criterion 1.5. (Conformity of the sectoral preferences of international higher education with the priority needs of the Estonian labor market)

Indicator	Quantitative score		
	3	**2**	**1**
Trend of change in proportion	increasing	unchanged	decreasing
Proportion in comparison with the other countries being analyzed	1st quartile	2nd and 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall rating of the component: medium (2)

Criterion 1.6. The proximity of the students' territorial preferences of international higher education to Estonia

Evaluation question: What is the percentage of the students of the target market who prefer universities of the countries that are similar to Estonia?

Answering method: comparative statistics and the results of international benchmarking (especially Eurostudent V) about the educational choices made, must be used

Suitable indicators: the percentage of the Central and Eastern European (CEE) countries from the EU member states among the foreign students of the target market; the percentage of Central and Eastern European countries from the EU member states among the countries of planned foreign study admission

Comparative data sources:

UNESCO http://uis.unesco.org/en/uis-student-flow

- Outward mobility – country of destination

OECS statistics http://stats.oecd.org/

- Enrolment of international students by origin, 2014 – about the OECD states; all the countries of origin (the result about the target market's students in OECD states' universities can be obtained by summarizing)
- International graduates by origin – about the OECD states; all the countries of origin (the result about the destination country's students in OECD states' universities can be obtained by summarizing)

Eurostudent V (2016): http://database.eurostudent.eu/

- K 11 Plans for destination of planned enrolment abroad - Region of destination for planned enrolment abroad; Host country for planned enrolment abroad
- K 6 Choice of region/country for realised enrolment abroad - Region of destination of enrolment abroad (most recent stay); Host country of enrolment abroad (most recent stay)

Bases for evaluating the criterion: greater student migration which is taking place or is planned in the countries that are territorially, economically, culturally and politically similar to Estonia refers to a better opportunity to be more successful when attracting the students of the target market to Estonia.

Table 12. Table for quantitative evaluation of the criterion 1.6. (The proximity of the students' territorial preferences of international higher education to Estonia)

	Quantitative score		
Indicator	**3**	**2**	**1**
Percentage of the CEE states in educational choices made in comparison with other states to be analyzed	1st quartile	2nd and 3rd quartile	4th quartile
Percentage of the CEE states in educational choices planned in coparison with other states to be analyzed	1st quartile	2nd and 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: small (1)

Criterion 1.7. The suitability of value proposition of the Estonian universities for student candidates

Evaluation question: How many of the target market members who are interested in the Estonian universities will submit an application for admission?How many of the student candidates who have submitted the application to the Estonian universities will be accepted at universities?

Answering method: data in the databases must be used and a count of the visited Internet websites based on IP addresses must be carried out

Suitable indicators: ratio between the number of applications received in the DreamApply Estonia system and the number of times the websites of DreamApply Estonia and Study in Estonia were visited, in comparison with alternative target markets; the ratio between the number of foreign students in the Estonian Education Information System (EHIS) and the number of those who submitted the application in DreamApply Estonia system

Data sources of comparative evaluation:

- Number of visits to DreamApply Estonia and Study in Estonia websites by the countries of destination (and, if necessary, by study fields, schools).
- Applications received by the DreamApply Estonia system by the countries of destination (and, if necessary, by study fields, schools).
- EHIS table for degree students in Estonian universities: 2016/17 (and earlier) - Number of foreign students; Number of foreign students admitted in 2016/17; countries, study fields and curriculum groups.

Bases for evaluating the criterion: the higher ratio between the number of applications received and the number of times the websites were visited refers to the better suitability of the initial value proposition; the higher ratio of the number of degree students and applications received refers to the greater final suitability

Table 13. Table for quantitative evaluation of the criterion 1.7. (The suitability of value proposition of the Estonian universities for student candidates)

	Quantitative score		
Indicator	**3**	**2**	**1**
Ratio between the number of applications received and the number of times the websites were visited	1st quartile	2nd and 3rd quartile	4th quartile
Ratio between degree students and applications received	1st quartile	2nd and 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: high (3)

Criterion 1.8. The efficiency of marketing activities for the target market customers

Evaluation question: How effective are the activities of Estonian universities in marketing and selling higher education services to the youth on the target market?

Answering method: a short e-questionnaire with the marketing specialists of Estonian universities (in case of sectoral analyzes, also with relevant structural units) must be carried out

Appropriate indicators: average values of the answers given by evaluation questions (assuming that universities and the state have done marketing activities on the target market - if not, the criterion will be left out from the calculation of the value of the relevant target market component)

Recommended questions for the evaluation questionnaire:

1. How effective has the marketing activity been among the student candidates of the target market so far in different countries based on the number of applications received?
2. How effective has the marketing activity been among the student candidates of the target market so far in different countries based on the number of students admitted?

Assessment scale: higher than average (3); average efficiency (2); lower than average (1)

Bases for evaluating the criterion: higher efficiency means a more suitable target market

Table 14. Table for quantitative evaluation of the criterion 1.8. (The efficiency of marketing activities for the target market customers)

	Quantitative score		
Indicator	3	2	1
Efficiency based on the number of applications received	1st quartile	2nd and 3rd quartile	4th quartile
Efficiency based on the number of admitted students	1st quartile	2nd and 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: high (3)

Criterion 1.9. Preparedness/suitability of the target market students for studying in Estonia

Evaluation question: What is the preparedness of the target market students to study at Estonian universities?

Answering method: a short e-questionnaire with the study specialists of Estonian universities (in case of sectoral analyzes, also of relevant structural units) and programme managers of international curricula must be carried out

Suitable indicators: average values of the answers given onpre a scale: higher than average (3); average level (2); lower than average (1), by evaluation questions.

Recommended questions for the evaluation questionnaire:

1. What is the educational preparedness of the target market students to study at degree studies of Estonian universities compared to other countries of destination?
2. What is the educational preparedness of the target market students to study at Estonian universities as an exchange student compared to other countries of destination?
3. What is the preparedness of the target market students to study in English?
4. How do the target market students fit in study groups?
5. What is the tendency of the target group to discontinue studies ahead of schedule?
6. What is the tendency of the target group to prolong the studies?
7. What is the preparedness and willingness of the target group to enter the Estonian labor market after graduation?

Bases for evaluating the criterion: greater preparedness and suitability and less tendency to drop out means more suitable target market.

Table 15. Table for quantitative evaluation of the criterion 1.9. (Preparedness/suitability of the target market students for studying in Estonia)

	Quantitative score		
Indicator	**3**	**2**	**1**
Educational preparedness to study at degree studies of Estonian universities	1st quartile	2nd and 3rd quartile	4th quartile
Educational preparedness to study at Estonian universities as an exchange student	1st quartile	2nd and 3rd quartile	4th quartile
Preparedness to study in English	1st quartile	2nd and 3rd quartile	4th quartile
Suitability in study groups	1st quartile	2nd and 3rd quartile	4th quartile
Tendency to discontinue studies ahead of schedule	1st quartile	2nd and 3rd quartile	4th quartile
Tendency to prolong studies	1st quartile	2nd and 3rd quartile	4th quartile
Preparedness and willingness to enter the Estonian labor market after graduation	1st quartile	2nd and 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Kriteeriumi kaal komponendi üldhinnangus: kõrge (3)

2. The potential of the target market

The second central focus of the market analysis is the target market's potential which can be measured by volume indicators and criteria, predominantly based on the current situation, and also partly on the basis of trends. There is one general principle - bigger volume is better, growing volume trend is better.

Criterion 2.1. Scope of the labor market requiring/expecting higher education

Evaluation question: What is the number of jobs on the target market that require higher education[5]?

Answering method: comparative labor market statistics must be used

Suitable indicators: number of jobs with higher education

Comparative data sources:

Database of International Labor Organization (ILO) Labor Market Statistics Database (http://www.ilo.org/ilostat/):

- Working-age population by sex, age and education
- **Labour force by sex, age and education**
- Labour force participation rate by sex, age and education
- **Employment by sex, age and education**
- Employment distribution by education (by sex and age)
- Employment by sex and economic activity - selected ISIC level 2
- Employment by sex and occupation - selected ISCO level 2
- Youth employment by sex, age, rural / urban areas and economic activity
- Youth employment by sex, age, rural / urban areas and occupation
- Employment by economic activity and occupation
- Employment by sector - ILO modeled estimates, Nov. 2016; Total, Agriculture, Industry, Services; 2000-2021; by sex; by country;
- Employment by occupation - ILO modeled estimates, Nov. 2016; Total,   Skill   levels   3   and   4 (high), Skill level 2 (medium), Skill level 1 (low); 2000-2021; by sex; by country;

The World Bank DataBank: Education Statistics http://databank.worldbank.org/ - International Labour Organization, Key Indicators of the Labour Market database.

- Labor force with tertiary education (% of total)

Bases for evaluating the criterion: the number of jobs with higher education compared to the other target markets involved in the analysis - bigger number means greater market potential; change in the number of jobs with higher education - growing trend means greater market potential.

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[5]   The basis of evaluation in sectoral analysis is the number of jobs in a specific economic field.

Table 16. Table for quantitative evaluation of the criterion 2.1. (Scope of the labor market requiring/expecting higher education)

Indicator	Quantitative score		
	3	2	1
Trend of the number of jobs with higher education	increasing	unchanged	decreasing
Number of jobs with higher education compared to the other countries to be analyzed	1st quartile	2nd and 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: average (2)

Criterion 2.2. Lack of educated workforce

Evaluation question: To what extent is the shortage of educated workforce on the target market?

Answering method: the results of labor market analyzes must be used

Suitable indicators: skills gap; assessments by the labor market partners and experts on the (substantial) lack of educated workforce (including in sectoral analyzes on different areas)

Comparative data sources:

OECS statistics http://stats.oecd.org/ - World Indicators of Skills for Employment

- Skills gap - Percent of firms identifying an inadequately educated workforce as a major constraint. The computation of the indicator is based on the rating of the obstacle as a potential constraint to the current operations of the establishment.

OECD Employment Outlook 2016; ILO Labour Force Surveys

Supplementary data: country-specific analyzes and focus reports

Bases for evaluating the criterion: skills gap in the country of destination - target markets with greater gap have greater market potential

Table 17. Table for quantitative evaluation of the criterion 2.1. (ScopTable for quantitative evaluation of the criterion 2.1. (e of the labor market requiring/expecting higher education)

Indicator	Quantitative score		
	3	2	1
Size of the skills gap	1st quartile	2nd and 3rd quartile	4th quartile
Quantitative evaluation	Arithmetic mean		

of the criterion	

Criterion weight in the overall evaluation of the component: low (1)

Criterion 2.3. The total number of youth on the target market joining higher education institutions

Evaluation questions: What is the total number of the youth admitted to higher education institutions in the country of destination?

Answering methods: population statistics must be used

Suitable indicators: number of youth (different relevant age groups)

Comparative data sources:

ILO statistics:

- Youth working-age population by sex, age, rural / urban areas, school attendance status and education
- Youth working-age population by sex, age, rural / urban areas, school attendance status and labour market status
- Youth working-age population by sex, age, rural / urban areas, school attendance status and labour market status

The World Bank DataBank: Education Statistics http://databank.worldbank.org/

- Population of the official age for tertiary education, both sexes (number) - UNESCO Institute for Statistics
- Population of the official age for post-secondary non-tertiary education, both sexes (number)

OECD statistics http://stats.oecd.org/

- Graduates by age: Upper secondary education (ISCED2011 level 3); Post-secondary non-tertiary education (ISCED2011 level 4)

Bases for evaluating the criterion: number of youth in the country of destination in comparison with the other target markets to be analyzed - bigger number means greater market potential; trend of indicator's values in the country of destination - growing trend means greater market potential;

Table 18. Table for quantitative evaluation of the criterion 2.1. (The total number of youth on the target market joining higher education institutions)

Indicator	Quantitative score		
	3	2	1
Change in the number of youth	increasing	unchanged	decreasing

Number of youth in comparison with other countries to be analyzed	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: low (1)

Criterion 2.4. Number of matriculants who join higher education institutions

Evaluation questions: What is the total number of matriculants every year in the country of destination, including by study levels?

Answering methods: statistics of higher education must be used

Suitable indicators: number of matriculants in different levels every year and its change

Comparative data sources:

The World Bank DataBank: Education Statistics http://databank.worldbank.org/ - UNESCO Institute for Statistics

- Enrolment in tertiary education, ISCED 6 programmes, both sexes (number)
- Enrolment in tertiary education, ISCED 7 programmes, both sexes (number)
- Enrolment in tertiary education, ISCED 8 programmes, both sexes (number)
- Gross enrolment ratio, tertiary, both sexes (%)

OECD statistics http://stats.oecd.org/

- New entrants by age: Bachelor's or equivalent level (ISCED2011 level 6); Master's or equivalent level (ISCED2011 level 7); Doctoral or equivalent level (ISCED2011 level 8); Total tertiary education, excluding doctoral level (ISCED 2011 levels 5 to 7) - about OECD countries

Bases for evaluating the criterion: the higher number of matriculants compared to other target markets being analyzed means greater market potential; increase in the number of matriculants means greater market potential.

Table 19. Table for quantitative evaluation of the criterion 2.4. (Number of matriculants who join higher education institutions)

	Quantitative score		
Indicator	**3**	**2**	**1**
Change in the number of matriculants (all study levels)	increasing	unchanged	decreasing
Number of bachelor's matriculants	1st quartile	2nd to 3rd quartile	4th quartile

Number of master's matriculants	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: large (3)

Criterion 2.5. The size of the student body that is interested in international higher education

Evaluation question: What is the number of the target market students who are interested in studying in foreign countries but have not realized this interest yet?

Answering method: the results of international benchmarking (primarly Eurostudent V) on student intentions must be used

Suitable indicators: Number of students (including bachelor's and master's students) who plan their studies in foreign countries

Comparative data sources:

Eurostudent V (2016): http://database.eurostudent.eu/

- K 1 Enrolment abroad by characteristics of students (I) - students who have not been enrolled abroad but plan to go,% - all students, bachelor students, master students (percentage must be multiplied by the total number of students on the target market)
- K 4 Enrolment abroad by field of study - students who have not been enrolled abroad but plan to go, % - education; humanities and arts; social sciences, business, law; (natural) science; engineering, manufacturing, construction; agriculture; health and welfare; services

Bases for evaluating the criterion: higher number of students who plan to study abroad means greater potential of the target market.

Table 20. Table for quantitative evaluation of the criterion 2.5. (The size of the student body that is interested in international higher education)

	Quantitative score		
Indicator	**3**	**2**	**1**
Number of bachelor's students who plan to study abroad	1st quartile	2nd to 3rd quartile	4th quartile
Number of master's students who plan to study abroad	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: average (2)

Criterion 2.6. Number of students who study in foreign countries

Evaluation question: How many students in the country of destination are studying abroad?

Answering method: the results of comparative statistics and international benchmarking (primarly Eurostudent V) on educational choices made must be used

Suitable indicators: Number of students (including bachelor's and master's students) who study abroad

Comparative data sources:

UNESCO http://uis.unesco.org/en/uis-student-flow

- Total number of mobile students abroad
- Outbound mobility ratio
- Gross outbound enrolment ratio

Eurostudent V (2016): http://database.eurostudent.eu/

- K 1 Enrolment abroad by characteristics of students (I) - students who have been enrolled abroad, % - all students, bachelor students, master students
- K 4 Enrolment abroad by field of study - students who have been enrolled abroad, % - education; humanities and arts; social sciences, business, law; (natural) science; engineering, manufacturing, construction; agriculture; health and welfare; services

OECS statistics http://stats.oecd.org/

- Enrolment of international students by origin, 2014 - OECD countries (Estonia and competitive countries); all countries of origin (the result about the target market's students in OECD states' universities can be obtained by summarizing)
- International graduates by origin - about the OECD states (Estonia and competitors); all the countries of origin (the result about the destination country's students in OECD states' universities can be obtained by summarizing)

The World Bank DataBank: Education Statistics http://databank.worldbank.org/ - UNESCO Institute for Statistics

- Outbound mobility ratio, all regions, both sexes (%)
- Net flow of internationally mobile students (inbound - outbound), both sexes (number)
- Net flow ratio of internationally mobile students (inbound - outbound), both sexes (%)

Eurostat (total number of Eurostat countries per country of destination)

- Mobile students from abroad enrolled by education level, sex and field of education
- Mobile students from abroad enrolled by education level, sex and country of origin

- Distribution of mobile students from abroad enrolled at education level by sex and field of education
- Degree mobile graduates from abroad by education level, sex and field of education
- Degree mobile graduates from abroad by education level, sex and country of origin

ERASMUS+

- Erasmus+ Programme Annual Report 2015; 2014

Bases for evaluating the criterion: bigger number of students abroad means greater target market potential; increase in the number of students studying abroad means greater target market potential

Table 21.. Table for quantitative evaluation of the criterion 2.6. (Number of students who study in foreign countries)

Indicator	Quantitative score		
	3	**2**	**1**
Trend of the number of students	increasing	unchanged	decreasing
Number of bachelor's students in comparison with other countries to be analyzed	1st quartile	2nd to 3rd quartile	4th quartile
Number of master's students in comparison with other countries to be analyzed	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: large (3)

3. Push factors

Push factors describe the weaknesses and problems of the target market which favor the emigration related to higher education.

Criterion 3.1. Outflow from the country

Evaluation questions: What is the intensity of outflow from the country of destination, including among youth? What is the change in the intensity of outflow from the country of destination, including among youth?

Answering method: population statistics must be used

Suitable indicators: outflow coefficient, outflow coefficient of youth (e.g 20 ... 24); change in outflow coefficient

Comparative data sources:

ILO statistics

- Outflow of nationals for employment by sex and country of destination
- Outflow of nationals for employment by sex and education
- Outflow of nationals for employment by economic activity
- Outflow of nationals for employment by occupation

Bases for evaluating the criterion: higher intensity of outflow means a stronger boost to leave the country of destination

Table 22. Table for quantitative evaluation of the criterion 3.1. (Outflow from the country)

	Quantitative score		
Indicator	**3**	**2**	**1**
Change in outflow coefficient	kasvav	muutumatu	kahanev
Outflow coefficient	1st quartile	2nd to 3rd quartile	4th quartile
Outflow coefficient of youth	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: average (2)

Criterion 3.2. Socioeconomic exclusion of youth

Evaluation questions: What is the percentage of youth in the country of destination who do not study or work?

Answering method: data from population and labor market statistics must be used

Suitable indicators: the proportion of youth not in employment, education or training (NEET)

Comparative data sources:

OECD statistics http://stats.oecd.org/

- Youth not in employment, education or training (NEET), 20-24 years

Bases for evaluating the criterion: higher percentage of NEET youth means limitedness of national options and a stronger boost to leave the country of destination; increase in the percentage of NEET youth means a stronger boost to leave the country of destination

Table 23. Table for quantitative evaluation of the criterion 3.2. (Socioeconomic exclusion of youth)

Indicator	Quantitative score		
	3	**2**	**1**
Change in the percentage of NEET youth	increasing	unchanged	decreasing
Percentage of NEET youth	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: low (1)

Criterion 3.3. Minority exclusion and inequality in society

Evaluation questions: How high is the percentage of people opposed to minorities in the country of destination?

Answering method: the results of international comparative surveys and the values of international indices must be used

Suitable indicators: rate of gender inequality, disapproval of homosexuality (global monitoring of values)

Comparative data sources:

ÜRO (http://hdr.undp.org/)

- Gender Inequality Index (GII)

World Values Survey Wave 6: 2010-2014 (http://www.worldvaluessurvey.org)

- V203.- Justifiable: Homosexuality

Bases for evaluating the criterion: greater exclusion and inequality motivates the outflow of discriminated groups, including in the form of outflow related to international higher education

Table 24. Table for quantitative evaluation of the criterion 3.3. (Minority exclusion and inequality in society)

Indicator	Quantitative score		
	3	**2**	**1**
Gender Inequality Index	1st quartile	2nd to 3rd quartile	4th quartile
Rate of disapproval of homosexuality	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: low (1)

Criterion 3.4. The weakness of the competitiveness of higher education

Evaluation questions: What is the position of research universities of the country of destination in international rankings[6]?

Answering method: the results of international ratings of research universities must be used

Suitable indicators: relative position of universities in the country of destination in general, sectoral and regional ratings

Comparative data sources:

- The *Times Higher Education (THE)* World University Rankings, including by regions
- QS World University Rankings, also by subjects: Arts & Humanities; Engineering & Technology; Life Sciences & Medicine; Natural Sciences; Social Sciences & Management
- Academic Ranking of World Universities (ARWU) World University Rankings, also by fields and subjects
- Center for World University Rankings (CWUR) World University Rankings, also by detailed subjects

Bases for evaluating the criterion: the absence of the universities in the rating (within the first 1000 universities) means a stronger boost to leave the country of destination.

Table 25. Table for quantitative evaluation of the criterion 3.4. (The weakness of the competitiveness of higher education)

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[6]   The basis of evaluation in sectoral analysis is the position in sectoral rankings.

	Quantitative score		
Indicator	3	2	1
Position of the universities in the THE rating	absent	At least 1 university within the first 1000	At least 1 university within the first 500
Position of the universities in the QS rating	absent	At least 1 university within the first 1000	At least 1 university within the first 500
Position of the universities in the ARWU rating	absent	At least 1 university within the first 1000	At least 1 university within the first 500
Position of the universities in the CWUR rating	absent	At least 1 university within the first 1000	At least 1 university within the first 500
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: high (3)

Criterion 3.5. Lack of resources in higher education

Evaluation questions: What is the ratio of the number of students and lecturers in higher education institutions? To what extent is higher education funded in the country of destination?

Answering method: comparative higher education statistics must be used

Suitable indicators: ratio of students and lecturers; expenditure of government sector per student

Comparative data sources:

The World Bank DataBank: Education Statistics http://databank.worldbank.org/ - UNESCO Institute for Statistics

- Pupil-teacher ratio in tertiary education (headcount basis)
- Government expenditure per tertiary student (constant PPP$)
- Government expenditure per tertiary student (constant US$)
- Government expenditure per tertiary student (PPP$)
- Government expenditure per tertiary student (US$)
- Government expenditure in tertiary institutions as % of GDP (%)
- Government expenditure on tertiary education as % of GDP (%)
- Government expenditure per tertiary student as % of GDP per capita (%)

Eurostat:

- Ratio of pupils and students to teachers and academic staff by education level and programme orientation
- Total public expenditure on education per pupil/student based on FTE by education level and programme orientation

Bases for evaluating the criterion: high ratio of students and lecturers in comparison with alternative target markets means a stronger boost to leave the country of destination; lower level of expenditures of government sector means a stronger boost to leave the country of destination

Table 26. Table for quantitative evaluation of the criterion 3.5. (Lack of resources in higher education)

	Quantitative score		
Indicator	**3**	**2**	**1**
Ratio of students and lecturers	1st quartile	2nd to 3rd quartile	4th quartile
Lower expenditures of government sector per student	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: low (1)

Criterion 3.6. Students' economic situation

Evaluation questions: How do students assess their financial situation? What is the tuition fee for studies in native language and in English (including by level of higher education, type of university and fields)? To what extent does the state support students? What are the living expenses in the country of destination?

Answering methods: comparative survey data; national regulations

Suitable indicators: students' assessments about their financial situation; the amount of tuition fee for the national student per academic year, scholarships for national studies (national tax regulations and/or university regulations on tuition fee), comparison with international English study, tuition fee - e.g BachelorsPortal, MastersPortal - and state scholarships for studies abroad; comparison of the living expenses of the target market with the level of Estonia and alternative target markets

Comparative data sources:

Eurostudent V (2016): http://database.eurostudent.eu/

- F 7 Students' assessment of their financial situation by characteristics of students (I)
- F 6 Students' assessment of their financial situation by form of housing - Assessment of current financial difficulties (moderate, serious, very serious - %) - students not living with parents
- E 5 Assessment of accommodation by form of housing and characteristics of students - students not living with parents: not satisfied, not satisfied at all, %
- E 6 Cost of accommodation for students not living with parents - Cost of accommodation per month, students not living with parents (in EUR): payments by students (arith. mean); payments by parents/partner/others (arith. mean); total payments (arith. mean); total payments (median)

Eurostat:

- Financial aid to students by education level - as % of total public expenditure

- Total educational expenditure by education level, programme orientation and type of source

MastersPortal database: specialty, location, tuition fee (EUR)

BachelorsPortal database: specialty, location, tuition fee (EUR)

Public information from national higher education authorities and major universities - regulations on tuition fee

Numbeo database on urban living costs (https://www.numbeo.com/cost-of-living/)

Bases for evaluating the criterion: a worse assessment on financial situation in comparison with other target markets to be analyzed means a stronger boost to leave the country of destination; higher tuition fee means a stronger boost to leave the country of destination; higher living expenses means a stronger boost to leave the country of destination

Table 27. Table for quantitative evaluation of the criterion 3.6. (Students' economic situation)

	Quantitative score		
Indicator	**3**	**2**	**1**
Students' assessment on their financial situation	1st quartile	2nd to 3rd quartile	4th quartile
Average amount of tuition fee for studying in native language	1st quartile	2nd to 3rd quartile	4th quartile
Average amount of tuition fee for studying in English	1st quartile	2nd to 3rd quartile	4th quartile
Amount of living expenses in the biggest city of the target market	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: average (2)

Criterion 3.7. The limitedness of providing English higher education on the target market

Evaluation questions: Whether and to what extent (incl. by study levels) is English higher education offered in the countries of destination[7]?

Answering method: data from international higher education databases and public information from relevant government authorities and major universities must be used, consulting with higher education authorities is necessary, if needed

Suitable indicators: number of English curricula; number of study fields (ISCED-F) which have an English curriculum

Comparative data sources:

- BachelorsPortal
- MastersPortal

Supplementary data: websites of government authorities and leading universities responsible for higher education

Bases for evaluating the criterion: small number or lack of English curricula means a stronger boost to leave the country of destination

Table 28. Table for quantitative evaluation of the criterion 3.7. (The limitedness of providing English higher education on the target market)

	Quantitative score		
Indicator	**3**	**2**	**1**
Number of English curricula in bachelor's studies	1st quartile	2nd to 3rd quartile	4th quartile
Number of English curricula in master's studies	1st quartile	2nd to 3rd quartile	4th quartile
Number of study fields which have an English curriculum in bachelor's studies	1st quartile	2nd to 3rd quartile	4th quartile
Number of study fields which have an English curriculum in master's studies	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: high (3)

[7] The basis for evaluation in sectoral analysis is the existence of English curricula in a specific study field.

4. Estonia's pull factors regarding the country of destination

Estonia's pull factors need to be described and evaluated in particular with regard to the target markets to be analyzed.

Criterion 4.1. Estonia's recognition and positive reputation

Evaluation questions: What is the general recognition and reputation of Estonia in the world? What is the general recognition and reputation of Estonia in a particular country of destination?

Answering methods: the results of comparative international reputational researches, also reputational researches (including media monitoring) conducted in the country of destination where needed and possible; in case of absence of country-specific reputational researches about Estonia, the experts who know the target market must be consulted (students in Estonia who come from the country, lecturers, diplomats, businessmen who have worked in this country), including in the form of short questionnaire

Suitable indicators: values of Country Brand Index (CBI); averaged values of the ordinal expert opinions on Estonia's recognition on the target market - Estonia is well-known (3), Estonia is little-known (2), Estonia is not known (1); Estonia has a good reputation, averaged values of the ordinal expert opinions on Estonia's reputation on the target market - Estonia has a good reputation (3), Estonia's reputation is average (2); Estonia's reputation is poor (1)

Comparative data sources:

Country Brand Index 2014-15 (http://www.futurebrand.com/country-brand-index);

Supplementary data: data of the expert survey

Bases for evaluating the criterion: comparison of the values of Estonian reputation indices with the values of the target market - better place in the index rankings in comparison with the target market characterizes a positive pull factor; Estonia's recognition and reputation on the target market - better recognition and more positive reputation is a stronger pull factor.

Table 29. Table for quantitative evaluation of the criterion 4.1. (Estonia's recognition and positive reputation)

Indicator	Quantitative score		
	3	**2**	**1**
Estonia's position in CBI in comparison with the target market	1st quartile	2nd to 3rd quartile	4th quartile
Estonia's recognition on the target market	1st quartile	2nd to 3rd quartile	4th quartile
Estonia's reputation on the target market	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: average (2)

Criterion 4.2. Interest in Estonia

Evaluation question: What is the general interest of the residents of the target market in Estonia?

Answering methods: Internet visiting statistics and tourism statistics must be used

Suitable indicators: Visits of ee-domain web sites by the residents of the country of destination; number of tourists and travels to Estonia from the country of destination

Comparative data sources::

Metrix Station

Statistical Office

- TU141: OVERNIGHT STAYS OF THE ACCOMMODATED PEOPLE BY COUNTY HOME COUNTRY (MONTHS);

Estonian Bank

- Travels of non-residents to Estonia

Bases for evaluating the criterion: comparison between target markets based on total number - higher number of visits of Internet websites and travels means a stronger pull factor for the country of destination to come to Estonia

Table 30. Table for quantitative evaluation of the criterion 4.2. (Interest in Estonia)

Indicator	Quantitative score		
	3	2	1
Visits of Estonian web sites	1st quartile	2nd to 3rd quartile	4th quartile
Travels of non-residents to Estonia	1st quartile	2nd to 3rd quartile	4th quartile
Overnight stays of the accommodated people	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: low (1)

Criterion 4.3. The quality of higher education in Estonia

Evaluation questions: What is the quality of Estonian universities compared to universities of the target market? What is the satisfaction of students in the country of destination with the quality of education in Estonia?

Answering methods: data from research university ratings, Web of Science publication and citation statistics, and the results of international surveys (primarily ISB) must be used

Suitable indicators: position of national universities in international university ratings; number of articles and citations; number of citations per article; number of most cited articles; summary figure of study satisfaction

Comparative data sources:

The *Times Higher Education* World University Rankings, including by regions

QS World University Rankings, also by subjects: Arts & Humanities; Engineering & Technology; Life Sciences & Medicine; Natural Sciences; Social Sciences & Management

ARWU World University Rankings, also by fields and subjects

CWUR 2016 - World University Rankings, also by detailed subjects

Web of Science (https://esi-incites-thomsonreuters-com)

- total papers, total citations, total citations per paper; top papers; highly cited papers; hot papers – by countries-territories

International Student Barometer, Autumn 2014 Estonia:

- SATISFACTION: LEARNING OVERALL
- Decision making elements: Institution reputation; Research quality

Bases for evaluating the criterion: comparison of ranking positions of Estonian universities with the values of best universities of the target market - better position in index ratings in comparison with the target market country characterizes a positive pull factor (difference of ranking positions between three best universities must be compared; in case 3 universities are not in the first 1000 of the ranking, their position must be considered as 1001st); higher ratio of citations of scientific articles per one article in comparison with the target market country means a better quality of research work in universities; higher study satisfaction among the students of destination country means a stronger pull factor of Estonia in relation to the target market

Table 31. Table for quantitative evaluation of the criterion 4.3. (The quality of higher education in Estonia)

Indicator	Quantitative score		
	3	2	1
Relative strength of the 3 best Estonian universities in AWRU rating in comparison with the 3 best universities of the country of destination	1st quartile	2nd to 3rd quartile	4th quartile
Ratio of citation of scientific articles in Estonia per article in comparison with the respective ratio of the country of destination	1st quartile	2nd to 3rd quartile	4th quartile
Satisfaction with studies in Estonian universities	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: high (3)

Criterion 4.4. Lower living expenses in Estonia

Evaluation question: What are the living expenses of Estonia in comparison with living expenses in the country of destination?

Answering method: values of benchmark indices of living expenses must be used

Suitable indicators: comparison of living expenses in Estonia with the living expenses of the country of destination; comparison of living expenses in Tallinn and Tartu with the living expenses in major cities of the country of destination

Comparative data sources:

The Economist Intelligence Unit (EIU)

- Worldwide Cost of Living 2016 report

-

Numbeo andmebaas (https://www.numbeo.com/cost-of-living/comparison.jsp)

- Cost of Living index, Cost of Living Plus Rent Index, Groceries Index, Restaurants Index, Local Purchasing Power (from the database of Estonian cities - Tartu and Tallinn)

Bases for evaluating the criterion: lower living expenses of Estonia and its cities in comparison with the living expenses of the country of destination means a positive pull factor - the greater the difference, the stronger the pull factor

Table 32. Table for quantitative evaluation of the criterion 4.4. (Lower living expenses in Estonia)

	Quantitative score		
Indicator	**3**	**2**	**1**
Comparison of living expenses in Tallinna and Tartu with the living expenses on the target market	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: average (2)

Criterion 4.5. Favorable price of international English higher education in Estonia

Evaluation question: How cheap or expensive is to study in Estonia at English curriculum for a student of the country of destination in comparison with studying in the country of destination?

Answering methods: comparison of average tuition fee for curricula with the public information from international databases and/or about funding higher education system

Suitable indicators: average amount of tuition fee for Estonian international English curricula in comparison with tuition fees of the target market - separately about native language and English curricula[8]

Comparative data sources:

- BachelorsPortal – about English curricula
- MastersPortal – about English curricula

Supplementary data: public information from universities and destination countries' government authorities of higher education

Bases for evaluating the criterion: lower tuition fee for Estonian international curricula in comparison with the tuition fee of the country of destination for native language and/or English curricula means a positive pull factor, relatively higher tuition fee means a negative push factor

Table 33. Table for quantitative evaluation of the criterion 4.5. (Favorable price of international English higher education in Estonia)

	Quantitative score		
Indicator	**3**	**2**	**1**
Average amount of annual tuition fee on the target market for native	1st quartile	2nd to 3rd quartile	4th quartile

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[8]   The object of the analysis in the sectoral analysis is only the price of the curricula of the study field.

language studies compared to the prices of English curricula in Estonia			
Average amount of annual tuition fee on the target market for English studies compared to the prices of English curricula in Estonia	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: average (2)

Criterion 4.6. The interest of youth in the country of destination towards Estonian higher education

Evaluation question: How big is the interest of youth in the country of destination in Estonian higher education?

Answering methods: data from the visiting statistics of Estonia's English web sites on higher education based on IP addresses and statistics of received applications in DreamApply Estonia system must be used

Suitable indicators: number of visits of Internet sites in the country of destination; number of visits in the country of destination per 1000 young people; number of applications received

Comparative data sources:

Mandatory selection of web pages:

- Study in Estonia
- DreamApply Estonia
- English study web pages of structural units of higher education institutions and their institutes etc

DreamApply Estonia:

- Applications received from the country of destination, including by study fields and curriculum groups

Bases for evaluating the criterion: comparison of the total number of visits with other target groups involved in the research - higher number means a stronger pull factor; comparison of the ratio of visits (per young people, e.g 20-24 years of age) with alternative countries of destination - higher ratio means a stronger pull factor; higher number of received applications means a stronger pull factor.

Table 34. Table for quantitative evaluation of the criterion 4.6. (The interest of youth in the country of destination towards Estonian higher education)

Indicator	Quantitative score		
	3	2	1
Number of visits of web pages from the country of destination	1st quartile	2nd to 3rd quartile	4th quartile
Ratio of visits of web pages from the country of destination	1st quartile	2nd to 3rd quartile	4th quartile
Number of applications received	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: high (3)

Criterion 4.7. Graduate students and exchange students of the target market in the Estonian higher education institutions

Evaluation questions: What is the number of students of the country of destination in Estonian higher education institutions? What is the change in the number of students of the country of destination in Estonian higher education institutions?

Answering method: higher education statistics and reporting must be used

Suitable indicators: number of foreign students from the country of destination; number of foreign students accepted.

Comparative data sources:

OECS statistics http://stats.oecd.org/

- Enrolment of international students by origin, 2014 – about the OECD states (Estonia and competitive countries); all the countries of origin

Degree students in Estonian universities:

- EHIS tabel 2016/17 and earlier) - Number of foreign students; Number of foreign students admitted 2016/17; countries, study fields and curriculum groups

Exchange students:

- Activity reports of higher education insitutions, yearbooks

Bases for evaluating the criterion: higher number of degree and exchange students from the country of destination means a stronger pull factor; increase in the number of degree and exchange students from the country of destination means a stronger pull factor.

Table 35. Table for quantitative evaluation of the criterion 4.7. (Graduate students and exchange students of the target market in the Estonian higher education institutions)

	Quantitative score		
Indicator	**3**	**2**	**1**
Trend of the number of exchange students	increasing	unchanged	decreasing
Trend of the number of degree students	increasing	unchanged	decreasing
Number of exchange students	1st quartile	2nd to 3rd quartile	4th quartile
Number of degree students	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: high (3)

Criterion 4.8. Satisfaction of the target market students with university studies in Estonia

Evaluation question: What is the satisfaction of students of the country of destination with university studies in Estonia? What is the satisfaction of the students of the country of destination with the support systems, the level of education, and living conditions?

Answering method: results of the international ISB survey must be used; if necessary, an additional e-survey with relevant questions must be carried out among the students studying in Estonia who come from the target markets that are absent from the ISB survey

Suitable indicators: level of satisfaction in comparison with alternative target markets

Comparative data sources:

International Student Barometer, Autumn 2014 Estonia:

- OVERALL SATISFACTION
- ARRIVAL & SUPPORT SATISFACTION
- LEARNING SATISFACTION
- LIVING SATISFACTION

Bases for evaluating the criterion: level of satisfaction of students of the target market with higher education in Estonia - higher level means a stronger pull factor

Table 36. Table for quantitative evaluation of the criterion 4.8. (Satisfaction of the target market students with university studies in Estonia)

	Quantitative score		
Indicator	3	2	1
General satisfaction	1st quartile	2nd to 3rd quartile	4th quartile
Satisfaction with support structures	1st quartile	2nd to 3rd quartile	4th quartile
Satisfaction with studies	1st quartile	2nd to 3rd quartile	4th quartile
Satisfaction with living conditions	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: average (2)

Criterion 4.9. The attractiveness of the Estonian labor market for target market employees

Evaluation questions: What is the Estonian wage level compared to the wage level of the country of destination? How many new employees from the country of destination join the Estonian labor market?

Answering methods: international data on wage and labor market statistics and, if necessary, expert opinions must be used

Suitable indicators: Estonian wage level in comparison with the target market country; foreign specialists who have joined the labor market (if possible, they should have separate higher education and have studied in Estonian universities)

Comparative data sources:

ILO Global Wage report (http://www.ilo.org/global/research/global-reports/global-wage-report/lang--en/index.htm):

- Mean nominal monthly earnings of employees by sex and economic activity
- Mean nominal monthly earnings of employees by sex and occupation
- Mean monthly employment-related income of employed persons by sex, total and migrants
- Median monthly employment-related income of employed persons by sex, total and migrants
- Average monthly earnings of employees (local currency): by occupation

ILO statstics

- Employment by economic activity, total and migrants
- Employment by occupation, total and migrants
- Employed migrants by country of origin

Work register of EMTA:

- Request for information on the increased number of jobs on the basis of citizenship or habitual residence

Bases for evaluating the criterion: Higher wage level in Estonia means a stronger pull factor; higher number of employees from the target market who have joined the labor market means a stronger pull factor in relation to the target market.

Table 37. Table for quantitative evaluation of the criterion 4.9. (The attractiveness of the Estonian labor market for target market employees)

	Quantitative score		
Indicator	**3**	**2**	**1**
Comparison of Estonian average wage with the country of destination	1st quartile	2nd to 3rd quartile	4th quartile
Number of employees (with higher education) joined the labor market from the country of destination within the last 3 years	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: low (1)

5. Coherent factors between the target market and Estonia (higher education system)

For the sake of analytical clarity, the methodology separates the coherent factors connecting Estonia and the target market - these are the factors which support and create preconditions for successful student mobility and also for integration of graduates into the society and labor market.

Criterion 5.1. The existence of ethnic communities in Estonia

Evaluation questions: How large is the national community of the country of destination in Estonia? Is the national community of the country of destination organized in Estonia?

Answering methods: comparative population statistics and public information from umbrella organizations of national minorities must be used, if necessary, their representatives must be consulted with.

Suitable indicators: size of the main nation in the country of destination; existence of ethnic culture associations in Estonia

Comparative data sources:

Statistics Office:

- RLE04: COUNTED PERMANENT RESIDENTS BY NATIONALITY AND GENDER, 31. DECEMBER 2011
- RV0222: POPULATION BY GENDER, NATIONALITY AND COUNTY, 1. JANUARY

Statistics of the Police and Border Guard Board

- Temporary residence permit on the basis of citizenship;
- Long-term residence permit on the basis of citizenship.

Bases for evaluating the criterion: higher number of national community of the target market in Estonia means greater coherence; the existence of ethnic culture association means greater coherence

Table 38. Table for quantitative evaluation of the criterion 5.1. (The existence of ethnic communities in Estonia)

Indicator	Quantitative score		
	3	**2**	**1**
Size of national community of the destination country	1st quartile	2nd to 3rd quartile	4th quartile
Existence of ethnic culture association	existent		absent
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: low (1)

Criterion 5.2. The intensity of transnational migration and travelling

Evaluation question: How large is mobility between the country of destination and Estonia?

Answering method: comparative population statistics and travel statistics must be used

Suitable indicators: number of new immigrants from the country of destination; Estonians' emigration to the country of the target market.

Comparative data sources:

ILO statistics

- Inflow of employed migrants by economic activity
- Inflow of employed migrants by occupation
- Outflow of nationals for employment by sex and country of destination

Statistics Office:

- RVR05: EMIGRATION BY COUNTRY AND GENDER

Estonian Bank:

- Travels of non-residents to Estonia
- Foreign travels of Estonian residents

Bases for evaluating the criterion: higher number of imigration and emigration and travels in relation to the country of destination means greater coherence.

Table 39. Table for quantitative evaluation of the criterion 5.2. (The intensity of transnational migration and travelling)

	Quantitative score		
Indicator	**3**	**2**	**1**
Number of imigrants from the country of destination within the last 3 years	1st quartile	2nd to 3rd quartile	4th quartile
Number of travels of the residents of the destination country to Estonia per year	1st quartile	2nd to 3rd quartile	4th quartile
Number of travels of Estonian residents to the country of destination per year	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: average (2)

Criterion 5.3. Mutual cultural proximity of societies

Evaluation questions: To what extent is the country of destination culturally close to Estonia?

Answering method: results of international value surveys (in particular the World Values Survey), and, if necessary, expert assessments must be used

Suitable indicators: proximity or distance of values by subjects in comparison with alternative target markets - initial selection of important subjects to choose relevant indicators from and construct indeces: social values and attitudes; political culture and regimes; religious values.

Comparative data sources:

World Values Survey (http://www.worldvaluessurvey.org), 14 thematic sub-sections, sh

- social values, attitudes & stereotypes (45 items);
- religious values (12 items);
- political culture and political regimes (25 items);

Bases for evaluating the criterion: proximity of values between the population of Estonia and the country of destination means greater coherence

Table 40. Table for quantitative evaluation of the criterion 5.3. (Mutual cultural proximity of societies)

	Quantitative score		
Indicator	**3**	**2**	**1**
Closeness of social values and attitudes	1st quartile	2nd to 3rd quartile	4th quartile
Closeness of religious values	1st quartile	2nd to 3rd quartile	4th quartile
Closeness of political culture	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: low (1)

Criterion 5.4. Foreign political and geopolitical connectivity of countries

Evaluation questions: How tight are official foreign political ties between the countries? To what extent does Estonia and the country of destination belong to common international organizations?

Answering method: public information and documentary analysis; comparison of survey results must be used

Suitable indicators: the existence of embassies and consular representation; the existence of visa requirements; membership in international organizations and national associations (e.g. EU and CIS, NATO); attitude of the residents of the destination country towards Estonia, NATO, EU etc.

Data from the homepage of the Ministry of Foreign Affairs:

Bilateral relations with the countries http://www.vm.ee/et/riigid/kahepoolsed-suhted

- Visits
- Agreements
- Economic relations
- Educational cooperation
- Cultural relations

National embassies in Estonia ttp://www.vm.ee/et/riigid/v%C3%A4lisriikide-saatkonnad-eestis

Foreign representations of Estonia http://www.vm.ee/et/taxonomy/term/123

- Embassies and consulates
- Honorary consuls
- Estonian foreign representations processing visa applications

Russian public opinion researches of Levada Center:

- НАЗОВИТЕ ПЯТЬ СТРАН, КОТОРЫЕ ВЫ МОГЛИ БЫ НАЗВАТЬ НАИБОЛЕЕ БЛИЗКИМИ ДРУЗЬЯМИ, СОЮЗНИКАМИ РОССИИ?
- КАКИЕ ПЯТЬ СТРАН ВЫ НАЗВАЛИ БЫ НАИБОЛЕЕ НЕДРУЖЕСТВЕННО, ВРАЖДЕБНО НАСТРОЕННЫМИ ПО ОТНОШЕНИЮ К РОССИИ?
- Как вы в целом относитесь сейчас к Европейскому Союзу?

Евразийских мониторинг, Интеграционный барометр ЕАБР — 2016:

- Какие из перечисленных на карточке стран, на Ваш взгляд, являются дружественными для нашей страны (на поддержку которых в трудную минуту можно рассчитывать)? - EU
- А какие из этих стран, на Ваш взгляд, являются недружественными для нашей страны (отношения с которыми являются конфликтными и несущими угрозу нашей стране)? - EU

Bases for evaluating the criterion: the existence of embassies and consular representations means greater coherence; the existence of visa requirements means less coherence; positive attitude of the residents of destination country towards EU and NATO means greater coherence

Table 41. Table for quantitative evaluation of the criterion 5.4. (Foreign political and geopolitical connectivity of countries)

	Quantitative score		
Indicator	**3**	**2**	**1**
Existence of embassies and/or consular representations	Mutually existent	Estonian embassy or consular representation in the country of	absent

		destination	
Visa requirements for the residents of the country of destination	no		yes
Membership and cooperation with EU and NATO	Belongs to both	Has a close cooperation with EU and/or NATO	no
Attitude of the residents of destination country towards EU and NATO	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: average (2)

Criterion 5.5. Proximity and availability of countries by transport

Evaluation questions: How close is the country of destination and Estonia to each other in time?How tight is the transport connection between Estonia and the country of destination? What is the cost of sustainable travel between Estonia and the country of destination?

Answering method: comparative data from databases must be used

Suitable indicators: the distance between countries in time (based on the fastest transport connection); frequency of direct connections per week; cost of the round-trip of the most popular transport connection.

Data:

- Tallinn Airport;
- Port of Tallinn;
- peatus.ee

Bases for evaluating the criterion: proximity between the countries, frequent connections and low cost of transport connection mean greater coherence

Table 42. Table for quantitative evaluation of the criterion 5.5. (Proximity and availability of countries by transport)

	Quantitative score		
Indicator	**3**	**2**	**1**
Distance between the countries in time	1st quartile	2nd to 3rd quartile	4th quartile
Frequency of connection between the countries	1st quartile	2nd to 3rd quartile	4th quartile

Price of connection between the countries	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: average (2)

Criterion 5.6. Economic relations between countries

Evaluation questions: To what extent are direct foreign investments reciprocally made? To what extent does trade take place between the countries? How many jobs are in companies controlled by the country of destination operating in Estonia?

Answering method: data from economic and foreign trade statistics must be used

Suitable indicators: volumes of reciprocal direct foreign investments within the last 3 years; reciprocal volumes of foreign trade; number of jobs in companies controlled by the country of destination and Estonia

Comparative data sources:

The World Bank DataBank:

- Foreign direct investment, net inflows (BoP, current US$)

OECD statistics http://stats.oecd.org/

- FDI financial flows - By partner country : Inward and outward FDI by partner country
- FDI financial flows by industry BMD4 : Inward and outward FDI by industry AND by geographic region
- Inward activity of multinationals by industrial sector - ISIC Rev 4 – number of persons employed
- Inward activity of multinationals by investing country - ISIC Rev 4 – number of persons employed

OECD statistics http://stats.oecd.org/

- FDI financial flows - By partner country: Inward FDI by instrument and by partner country
- FDI financial flows - By partner country: Outward FDI by instrument and by partner country
- FDI financial flows by industry BMD4 : Inward and outward FDI by industry AND by geographic region

Statistics Office:

- VK2: EXPORTS AND IMPORTS OF GOODS BY COMMODITY GROUP (KN 2-DIGIT CODE) AND COUNTRY (MONTHS)
- ER012: GROUPS OPERATING IN ESTONIA --- Year, Owner state and Field of Business (EMTAK 2008); Fields of business in total, Agriculture, forestry and fishing, Mining industry, Processing manufacturing, Supply of electricity, gas, steam and conditioned air, Water supply; sewage, waste and pollution management; Construction, Wholesale and retail; Repair of motor vehicles and

motorcycles, Transport and storage, Accommodation and catering, Information and communication, Financial and insurance activities, Real estate activities, Professional, scientific and technical activities, Administrative and support service activities, Public administration and defense; compulsory social security, Education, Health and social welfare

- EM060: ECONOMIC INDICATORS OF ENTERPRISES (WITH 20 AND MORE EMPLOYED) BY FIELD OF BUSINESS (EMTAK 2008) AND STATE IN CONTROL

Estonian Bank

- State of direct investments in Estonia and abroad by states (million euros)

Bases for evaluating the criterion: bigger volumes of direct foreign investments and foreign trade mean greater coherence; higher number of jobs in companies controlled by foreign states means greater coherence

Table 43. Table for quantitative evaluation of the criterion 5.6. (Economic relations between countries)

Indicator	Quantitative score		
	3	2	1
Volumes of direct foreign investments of Estonia and the country of destination in total	1st quartile	2nd to 3rd quartile	4th quartile
Volumes of foreign trade between Estonia and the country of destination in total	1st quartile	2nd to 3rd quartile	4th quartile
Number of jobs in foreign companies controlled by Estonia and the country of the target market in total	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: low (1)

Criterion 5.7. Strategic relevance of the target market and prior marketing activities on target markets

Evaluation questions: Is the country of the target market defined as an important target market at the strategic level regarding foreign trade, tourism and/or higher eduction? In what volume and form has been contributed to introducing Estonia on the target market?

Answering method: data from the document analysis must be used, and if necessary, representatives of key institutions (EAS, MKM, Archimedes, HTM, higher education institutions) must be consulted with

Suitable indicators: priority of the country of destination in strategic development plans and practical marketing activities; financial volume of marketing activities in the country of destination

Data:

- Priority target markets of Study of Estonia - strategic choices, budget and activities on target markets
- Priority target markets of higher education institutions - strategic choices, budget and activities on target markets
- Estonian National Tourism Development Plan 2014-2020 - priority target markets of tourism
- Activity reports and consolidated action plans of the EAS - Expenditure on tourism marketing, FDI and foreign market activities

Bases for evaluating the criterion: strategic importance and priority of the target market means greater coherence; previous marketing activities on the target market means greater coherence

Table 44. Table for quantitative evaluation of the criterion 5.7. (Strategic relevance of the target market and prior marketing activities on target markets)

Indicator	Quantitative score		
	3	**2**	**1**
Priority target market of Study of Estonia	yes		no
Number of higher education institutions who consider the target market to be priority	1st quartile	2nd to 3rd quartile	4th quartile
Budget for activities of Study of Estonia in the target market within the last 3 years	1st quartile	2nd to 3rd quartile	4th quartile
Priority of the country of destination in the tourism development plan	yes		no
Volume of expenditures of EAS marketing activities (tourism, FDI, reaching foreign markets) in the country of destination within the last 3 years	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: high (3)

Criterion 5.8. International co-operation in higher education

Evaluation questions: How tight is the cooperation between the countries in higher education?Are scholarships reciprocally offered for participants in student mobility and to what extent?

Answering method: data from public information and documents must be used; if necessary, specialists of key institutions (HTM, Archimedes, higher education institutions) must be consulted with

Suitable indicators: the existence of foreign agreements between the countries in the field of education and research (including contracts with quotas of scholarship and short study visit grant); the existence of agreements between universities, including partner universities, ERASMUS+ mobility agreements for students and lecturers; volumes of national scholarships and grants promoting the international mobility of students and lecturers, and the number of people using it (from Estonia to the country of destination, from the country of destination to Estonia)

Bases for evaluating the criterion: the existence of cooperation agreements and mobility scholarships and the higher number of people using mobility scholarsihps means greater coherence

Table 45. Table for quantitative evaluation of the criterion 5.8. (International co-operation in higher education)

Indicator	Quantitative score		
	3	**2**	**1**
Existence of higher education agreements between countries	yes		no
Existence of agreements of reciprocal recognition of degrees	yes		no
Volumes of using scholarships which enable student mobility between countries	1st quartile	2nd to 3rd quartile	4th quartile
Volumes of using scholarships which enable mobility of lecturers between countries	1st quartile	2nd to 3rd quartile	4th quartile
Budget volume of common research projects of Estonia and the country of destination	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: high (3)

Criterion 5.9. The readiness of youth on the target market to participate in international higher education

Evaluation questions: What is the educational level of pupils in secondary and high school on the target market? What is the educational level of adults on the target market? What is the English language proficiency level among residents, youth and schoolchildren on the target market?

Answering method: results of international tests of knowledge and skills must be used

Suitable indicators: TIMSS test results compared to alternative target markets; PISA test results compared to alternative target markets; PIAAC test results compared to alternative target markets; aggregate indicators of English language proficiency level

Comparative data sources:

International Association for the Evaluation of Educational Achievement (IEA)'s Trends in International Mathematics and Science Study

- TIMSS: Eighth grade students reaching the high international benchmark of science achievement (%)
- TIMSS: Eighth grade students reaching the high international benchmark of mathematics achievement (%)
- TIMSS: Eighth grade students reaching the advanced international benchmark of science achievement (%)
- TIMSS: Eighth grade students reaching the advanced international benchmark of mathematics achievement (%)

OECD Programme for International Student Assessment (PISA)

- PISA: Mean performance on the reading scale
- PISA: Mean performance on the science scale
- PISA: Mean performance on the mathematics scale

OECD Programme for the International Assessment of Adult Competencies (PIAAC)

- PIAAC: Distribution of Adult Literacy Scores: 75th Percentile Score
- PIAAC: Distribution of Adult Numeracy Scores: 75th Percentile Score
- PIAAC: Distribution of Adult Problem Solving in Technology-Rich Environments Scores: 75th Percentile Score
- PIAAC: Mean Adult Literacy Proficiency. Total
- PIAAC: Mean Adult Numeracy Proficiency. Total
- PIAAC: Mean Young Adult Literacy Proficiency. Total
- PIAAC: Mean Young Adult Numeracy Proficiency. Total

The EF English Proficiency Index (online survey, not a statistically valid sampling of the population)

The European Survey on Language Competences

Eurostat

- Pupils by education level and modern foreign language studied - absolute numbers and % of pupils by language studied
- Level of the best-known foreign language (self-reported) by age

- Level of the best-known foreign language (self-reported) by educational attainment level

Bases for evaluating the criterion: better results show greater coherence with higher education system, including Estonian higher education system; better English language proficiency level shows greater coherence with international higher education system, including in Estonia.

Table 46. Table for quantitative evaluation of the criterion 5.9. (The readiness of youth on the target market to participate in international higher education)

Indicator	Quantitative score		
	3	**2**	**1**
TIMSS test results	1st quartile	2nd to 3rd quartile	4th quartile
PISA test results	1st quartile	2nd to 3rd quartile	4th quartile
PIAAC test results	1st quartile	2nd to 3rd quartile	4th quartile
English language proficiency level	1st quartile	2nd to 3rd quartile	4th quartile
Quantitative evaluation of the criterion	Arithmetic mean		

Criterion weight in the overall evaluation of the component: average (2)

USED LITERATURE

Cheung, A., Yuen, T., Yuean, C., & Cheng, Y. C. (2011): Strategies and policies for Hong Kong's higher education in Asian markets. International Journal of Educational Management, 25 (2), pp. 144–163.

De Haan, H. H. (2015): Competitive advantage, what does it really mean in the context of public higher education institutions? International Journal of Educational Management, 29 (1), pp 44–61.

Hipsher, S. and Bulmer, J. (2016): Developing Economy Universities Competing in a Global Market: Evidence from Thailand. In (Eds. T. Wu and V. Naidoo) International Marketing of Higher Education. Palgrave MacMillan

Hirsch, F. (1976): Social Limits to Growth. Cambridge: Harvard University Press.

Kosmützky, A. and Putty, R. (2016): Transcending Borders and Traversing Boundaries: A Systematic Review of the Literature on Transnational, Offshore, Cross-Border, and Borderless Higher Education. Journal of Studies in International Education 2016, Vol. 20(1), pp. 8–33

Lee, E. S. (1966): A theory of migration. Demography, 3, pp. 47-57.

Lehmann, D.R. & Winer, R.S. (2007): Analysis for Marketing Planning (7th ed). New York: McGraw-Hill/Irwin

Marginson, S. (2004): Competition and Markets in Higher Education: a 'glonacal' analysis. Policy Futures in Education, Volume 2, Number 2, pp. 175-244

Marginson, S. (2006): Dynamics of National and Global Competition in Higher Education. Higher Education, Vol. 52, No. 1, pp. 1-39

Mazzarol, T.& Soutar, G. N. (2002): "Push-pull" factors influencing international student destination choice. International Journal of Educational Management, 16, pp. 82-90.

McMahon, M. E. (1992). Higher education in a world market: An historical look at the global context of international study. Higher Education, 24, pp. 465-482.

Padar, E. (2016): KÕRGHARIDUSE VÄLISTURUNDUSE TURUANALÜÜSIDE LÄBIVIIMINE – KRITEERIUMID JA VÕIMALIKUD SIHTRIIGID. SIHTTURGUDE TURUANALÜÜSI METODOLOOGIA VÄLJA TÖÖTAMIST ETTEVALMISTAV KAVAND. Tallinn: Archimedes

Wilkins, S. & Epps, A. (2011): Student evaluation web sites as potential sources of consumer information in the United Arab Emirates. International Journal of Educational Management, 25, pp. 410-422.

Wilkins, S., Balakrishnan, M.S., Huisman. J (2012): Student Choice in Higher Education: Motivations for Choosing to Study at an International Branch Campus. Journal of Studies in International Education 16(5), pp. 413–433"