

Country-of-**origin and International Students' Motivation in Turkey:**
A Correspondence Analysis

**Türkiyedeki Uluslararası Öğrencilerin Memleketleri ve
Motivasyonları: Bir Uyum Analizi**

Kübra KARAKAYA-ÖZYER** 

Zeki YILDIZ*** 

Received: 27 February 2019

Research Article

Accepted: 30 July 2019

ABSTRACT: The number of international students in Turkish universities was increased in recent years. Despite the increasing number of international students in Turkey, it is still below from the other Organization for Economic Cooperation and Development (OECD) countries. To understand the reasons of this situation, it is crucial to examine the selection criteria of international students. The main objective of this study was to examine the most important factors that affect students' choice to study abroad. The study was designed as quantitative research. A correspondence analysis was conducted to identify the information from international students who chose Turkey for higher education. As a multivariate analysis technique, correspondence analysis graphically portrays the choice criteria of international students and their country of residence in a single joint space. A survey was developed by the researchers and distributed to the international students at two public universities in Turkey and the data were collected from 281 international students. The results revealed that the two-dimensional solution was accepted with a significant chi-square value and variances accounted for 99% of the total variance explained. Specifically, the selection criteria for an institution in Turkey and Eskişehir differ with international students' home country.

Keywords: international students, university selection, correspondence analysis, pull-push factors.

ÖZ: Türkiye'deki üniversitelerinde bulunan uluslararası öğrencilerin sayısı her geçen yıl düzenli olarak artmaktadır. Artan bu talebe rağmen Türkiye'deki uluslararası öğrenci oranı diğer Ekonomik Kalkınma ve İşbirliği Örgütü'nde (OECD) yer alan ülkelere göre düşüktür. Bu durumun altında yatan sebepleri öğrenmek için uluslararası öğrencilerin Türkiye'yi seçme kriterlerini araştırma hedeflenmiştir. Bu araştırmanın amacı uluslararası öğrencilerin Türkiye'yi yükseköğretim için seçme sebeplerini tespit etmektir. Bu çalışma nicel araştırma modeli olarak tasarlanmıştır. Bu tespit için uyum analizi yöntemi kullanılmıştır. Bir tür çok değişkenli istatistiksel analiz yöntemi olan uyum analizi ile uluslararası öğrencilerin tercih sebepleri ile onların memleketleri arasındaki ilişkiyi grafik biçiminde ifade etmeye fırsat vermektedir. Araştırmacılar tarafından geliştirilen anket Türkiye'deki iki devlet üniversitesindeki uluslararası öğrencilere dağıtılmıştır ve 281 katılımcıya ulaşılmıştır. Uyum analizi sonuçları gösteriyor ki, iki boyutlu çözüm anlamlı ki-kare değerine sahiptir ve toplam varyansın %99'unu açıklamaktadır. Bu bulgular doğrultusunda Türkiye'ye ve Eskişehir'e yükseköğretim için gelen uluslararası öğrencilerin tercih sebeplerinin geldikleri bölgelere göre farklılık gösterdiği tespit edilmiştir.

Anahtar kelimeler: uluslararası öğrenciler, üniversite seçimi, uyum analizi, çekme-itme faktörleri.

** Corresponding Author: Res. Asst., Eskişehir Osmangazi University, Eskişehir, Turkey, kozyer@ogu.edu.tr, <https://orcid.org/0000-0002-0208-7870>

*** Prof. Dr., Eskişehir Osmangazi University, Eskişehir, Turkey, zyildiz@ogu.edu.tr, <https://orcid.org/0000-0003-1907-2840>

Citation Information

Karakaya-Özyer, K., & Yıldız, Z. (2020). Country-of-origin and international students' motivation in Turkey: A correspondence analysis. *Kuramsal Eğitim Bilim Dergisi [Journal of Theoretical Educational Science]*, 13(1), 44-64.

Introduction

In the 21st century, the international education industry has raised the number of international students to more than double (Shanka, Quintal, & Taylor, 2006). Nowadays, the number of students who emigrate to another country for higher education has exceeded 800,000 and most of the developed countries such as United States, United Kingdom, Canada, and Australia. The Organization for Economic Cooperation and Development (OECD) countries share a big portion of the internationalization economy (Australian Education International, 2001, 2004). By 2025, it is believed that the number of international students will reach to 8 billion around the world (Çetinsaya, 2014; International Development Program of Australian Universities and Colleges, 2002).

The application to European Union membership and the participation into OECD push Turkey to consider internationalization in education (Radmard, 2012). While Turkey hosted 16,000 international students in 2006, the number of full-time international students has reached 81,000 in 2016 (Council of Higher Education, 2017; Çetinsaya, 2014). Unfortunately, the final OECD research reported that Turkey now has the lowest proportion of international tertiary students in the OECD countries with 1.0% (OECD, 2016). All these data demonstrate that Turkish universities have not achieved the expected level of internationalization for education. In Turkey, there are two types of universities for students: governmental and private universities. Most of the Turkish universities accept students from different countries. However, Türkiye Scholarship is a major source for international students to enter public universities in Turkey. Over 130,000 students from 172 different countries applied for this scholarship in 2018 (www.turkiyeburslari.gov.tr). Hence, the majority of international students came to Turkey via scholarship programs and diplomatic agreements (Radmard, 2012).

Since there is an increase in the number of international students in university campuses throughout Turkey, Turkish universities need to reform their marketing strategies to attract international students. Similar to other developing countries, Turkey encountered various problems and limitations in terms of internalization of education.

Research about selection factors to study abroad is crucial and those factors demonstrated that students from different countries have different interests for a higher educational destination (Chen, 2008; Mazzarol & Soutar, 2002; Shanka et al., 2006). As a result, it is important to examine the reasons for the host country selection criteria in order to improve international education in Turkey.

Subsequent research over the past few decades was conducted to clarify reasons that influence the decision making of international students to pursue higher education (Maringe & Carter, 2007; Mazzarol & Soutar, 2002). These researches clearly illustrated the multi-dimensional aspects of the process and provided decision-making process models (Maringe & Carter, 2007; Mazzarol & Soutar, 2002).

Literature Review

The Push-pull Model of International Student Motivation

According to Mazzarol and Soutar (2002), the motivational factors for students in studying abroad are divided into two categories: push and pull factors. Push factors are those that originate by the home country and are defined as factors that initiate people's decision to seek higher international education (Mazzarol & Soutar, 2002). The researchers examined the factors influencing the host country selection criteria from several research studies (Chen, 2008; Mazzarol & Soutar, 2002; Radmard, 2012) and concluded that major economic and social problems push students to seek higher education in another country (Mazzarol & Soutar, 2002). Students from developing countries do not have many opportunities in their countries and they have the desire for searching for new destinations. On the other hand, pull factors seen as the factors that make the host country attractive to the students. Quality of education, variety of programs, expertise of educational staff and family recommendations are crucial pull factors that attract students to a new destination. Particularly, the findings also suggested that other influential factors for international students were the reputation of the institution, high-quality staff and the number of students enrolled at the university (MacGregor, 2014; Mazzarol & Soutar, 2002).

There are many critical pull factors for international students' choice of institutions. Academic reputation is one of them. Early research demonstrated that school prestige and quality of department were identified as key factors for international students' university selection (Bowers & Pugh, 1972). Further research has confirmed that academic reputation is still a crucial variable in the international education literature (Abubakar, Shanka, & Muuka, 2010; Mazzarol, Soutar, & Thein, 2001; Padlee, Kamaruddin, & Baharun, 2010; Soutar & Turner, 2002).

In addition to academic reputation, studies illustrated the importance of programs and the variety of subjects for students' decision-making process (Abubakar et al., 2010; Daily, Farewell, & Kumar, 2010; James-MacEachern & Yun, 2017; Joseph & Joseph, 2000; Kondakci, 2011; Maringe & Carter, 2007; Mazzarol, Savery, & Kemp, 1996; Mazzarol & Soutar, 2002; Shanka et al., 2006; Soutar & Turner, 2002; Wilkins & Huisman, 2011). According to Mazzarol and Soutar (2002), host institutions must have a high academic reputation in order to be chosen by international students. Offering extensive course choices attract international students in deciding a specific institution (Özoğlu, Gür, & Coşkun, 2015). The importance of quality of professors at school were supported by various research and thus international students are influenced to choose their host institution and host country (James-MacEachern & Yun, 2017; Mazzarol & Soutar, 2002; Shanka et al., 2006).

According to Gorman (1974), costs and fees are also crucial factors that influence international students' university selection process (as cited in Shanka et al., 2006). Students tend to enroll in universities that they can afford (Abubakar et al., 2010; Chen, 2008; Joseph & Joseph, 2000; Özoğlu et al., 2015). Moreover, students search for scholarship opportunities for their higher education (Joseph & Joseph, 2000). Students from different countries have different cost issues and some students seek part-time job opportunities to gain money in a host country (Maringe & Carter, 2007; Mazzarol & Soutar, 2002). Daily et al. (2010) showed that financial aid is one of the most important

factors that influence the decision of students to pursue higher education. Hence, scholarship opportunity is an important factor (Alfattal, 2017; Kondakci, 2011; Mazzarol & Kemp, 1996; Nkoko, 2016). Jiani (2016) also supported the findings that students from developing countries choose to study abroad for scholarship opportunities. Moreover, the cost of living in the area was also found to be a major factor in their choice of school (Chen, 2008; Daily et al., 2010; Özoğlu, et al., 2015). It can be claimed that to live in Turkey is much cheaper than any other developed countries such as the USA. As a result, it is expected that international students prefer Turkey because of low living costs.

Family and friend recommendations are other key factors that influence international students' decision-making process (Chen, 2008; Daily et al., 2010; Joseph & Joseph, 2000; Özoğlu et al., 2015; Shanka et al., 2006; Soutar & Turner, 2002). Mazzarol and Soutar (2002) claimed that personal recommendations from close relatives affect the decision to study overseas. Moreover, parents and relatives are likely to recommend institutions that they have graduated from or have had experience in (Mazzarol & Soutar, 2002).

Proximity to the home country is considered as another major factor in the literature (Kondakci, 2011; Nachatar-Singh, Schapper, & Jack, 2014; Soutar & Turner, 2002). Historical ties between host and home countries, geographical proximity of Turkey from the country of origin and cultural closeness are major factors.

Beside these major factors, there are various factors that affect the decision making for the host institution. The number of international students, the safety of the country or city, and job opportunity after graduation are factors that are also important for international students (Alfattal, 2017; Daily et al., 2010; Kondakci, 2011; Maringe & Carter, 2007; Mazzarol, Kemp, & Kemp, 1996; Mazzarol & Soutar, 2002; Nachatar-Singh et al., 2014; Özoğlu et al., 2015; Shanka et al., 2006; Soutar & Turner, 2002).

Wilkins and Huisman (2011) investigated international student destination choice and the results revealed that pull factors are more influential than push factors for starting studies overseas. As a result, there are many studies which focus on the pull factors in the literature (e.g. Chen, 2008; James-MacEachern & Yun, 2006).

James-MacEachern and Yun (2006) conducted a study in a small Canadian institution to fill the gap in the literature about international undergraduate students. The aim of the study was to identify the factors that influence international students' choices while selecting a small institution. Particularly, this study used chi-square and t-test statistics to identify if there are differences in the influential factors between Chinese students and other international students. They concluded that there are two main sources of information for choosing a small institution: university-related motivations (e.g. reputation, location etc.) and structural motivations (e.g. financial issues), and reference groups (parents, friends, peers). Furthermore, the results indicated that reputation, academic programs, expenses, and grants are the most important pull factors on students' decision-making process (James-MacEachern & Yun, 2006). In other words, the findings revealed that international students attending a small institution in Canada identified the most crucial influential factors to be environmental cues and educational facilities.

Similar to James-MacEachern and Yun (2006), Chen (2008) investigated the effect of internalization and marketing of higher education on international students' choice of a university in Canada. He collected the data from 235 graduate and undergraduate international students from Hong Kong, China, Japan, Korea, and Taiwan. First of all, he examined the factors that influence the decision to study abroad. The results showed that graduate students in Canada were influenced by student characteristics and encouragement from family and friends as well as factors related to internalization and globalization. The most influential factor for graduate students was personal characteristics. On the other hand, undergraduate students reported that family decision was the most crucial driving force in studying abroad. Besides the factors influencing studying abroad, Chen (2008) also examined the choice of Canada in the study. The questionnaire results revealed that the characteristics of Canada, the characteristics of marketing or information and significant others (family and friends) are the factors that influenced the choice of studying in Canada. The study showed that graduate students prefer a Canadian university in terms of the affordable tuition and ranking of the university (marketing factors). Undergraduate students ranked factors related to institutional characteristics with high importance in choosing a Canadian school (Chen, 2008). Even though this study demonstrated a broad explanation in the difference between the graduate and undergraduate international students driving forces for studying abroad, there was not much information about the comparison of students from different countries.

In 2012, Turkey published a report about global trends and international students in Turkey. The report was prepared by the Foundation for Political, Economic and Social Research (SETA) and they conducted a qualitative study to examine international students' decision-making process. The results revealed that students from other Turkic Republics prefer Turkish universities because of geographical and cultural proximity. Most of these students had prior experiences with Turkey and their families supported them in choosing Turkey for higher education. Moreover, geographical proximity, cultural and historical connections affect students from Balkan states. Similarly, students from Middle East prefer Turkey because it is recommended by acquaintances and there is a growing reputation of Turkey in the Middle East. In general, qualitative interviews demonstrated that international students desire to undertake higher education in Turkey are in terms of 6 categories as follows: quality of education, cost of living and education, financial aid, cultural and religious proximity, family and friend recommendation, and guidance of Turkish schools in their country (Özoğlu, Gür, & Coşkun, 2012).

Turkey was known as a sending country of international students. However, it has rapidly changed during 10 years and now Turkey is ready to be called as a host country. Kondakci (2011) conducted a study on international students and the study revealed that students from Russia, Ukraine, and Baltic countries prefer Turkey in order to find a better job. Also, students from Azerbaijan and Central Asia are more likely to choose Turkey due to proximity to their home country. In addition, the academic quality of Turkish universities is the most influential factor for students from east Europe. Finally, Kondakci (2011) claimed that students from Turkic republics care more about scholarship opportunities for higher education. Similarly, Nkoko (2016) conducted a thesis study and found that African and Balkan students prefer Turkey because of

financial aid (Turkiye scholarship). Beside scholarship opportunity, students from Balkan countries prefer Turkey for its high quality of education (Nkoko, 2016). Finally, Asian students mentioned that both scholarship opportunities and quality of education are the most important factors in choosing Turkey as a study destination.

Purpose of the Study

The aim of this study is to investigate the major reasons why international students prefer Turkey for higher education. In particular, it is important to analyze the positioning of students' choice of study destination on the merits of their home country. In other words, this study aims to compare the difference between international students from different geographical regions in selecting Turkey and Eskişehir (a city in Turkey) for higher education. The vast majority of researches dealing with selection criteria have used developed countries (e.g. US, UK, Australia). However, there are few studies into Turkish universities and international students' choices regarding those universities. Unfortunately, these researches did not provide the information about the relationship between home country and university selection criteria. Because of the increasing number of international students' application into Turkish universities, it is crucial to analyze push and pull factors in terms of internationalization of Turkish Higher education. Soutar and Turner (2002) suggested using correspondence analysis to provide insights on students' decision processes. Because correspondence analysis can bring more detailed findings to show the association with categorical data, this method was preferred in the current study. There is a unique contribution to the literature because there is no research which used correspondence analysis for international students' university selection criteria process in Turkey.

In this section, characteristics of participants, instrument, data collection procedure and data analysis method were described. The study was designed as a quantitative method.

Participants

The population of the study was 4074 international students in Eskişehir (Council of Higher Education, 2017). Because it is hard to reach all students contact information, convenient sampling method was used to collect the data. The sample of the study was 281 international students attending Turkish universities in Eskişehir. All part-time and full-time international students were allowed to participate in the study. Moreover, students enrolled in language preparation programs, undergraduate and graduate programs were included as a sample of this study. These international students represented different countries in Europe, the Arabian Union, Asia, and Africa. International students attending Turkish universities in Eskişehir were chosen as the study sample for two main reasons. Firstly, selecting participants that had certain characteristics in common backgrounds was important (Cohen, Manion, & Morrison, 2011; Krueger & Cassey, 2009). In this research, the common experience of attending an institution was considered an essential characteristic since it was the main data to be analyzed. Secondly, universities in Eskişehir have a large number of international students with various educational backgrounds. These two factors made international students in Eskişehir a suitable sample for this study.

Table 1
Characteristics of Participants

	<i>n</i>	%
Gender		
Female	71	25.26
Male	210	74.74
Marital status		
Single	252	89.68
Married	29	10.32
Education		
TOMER	27	9.61
Undergraduate	154	54.80
Master's degree	73	25.98
Ph.D.	27	9.61
Department		
Health Science	17	6.05
Science	112	39.85
Social Science	134	47.69
Education	13	4.63
No-major	5	1.78
Home country		
Africa	50	17.80
Europe	35	12.45
Asia	96	34.16
Arabian Union	100	35.59

Note. *n* = number of students.

Of the 281 participants, 71 were female students and 210 were male students. The majority of students were single ($n=259$) and only 29 students claimed they were married. Also, 31 students studied the Turkish language preparation level (TOMER). In addition to that, there are 155 undergraduate students, 75 master's degree students and 27 Ph.D. students in the current study (see Table 1). While there were only 17 health science and 13 education department students, there were 112 science and 134 social science students (see Table 1). Also, 50 of the international students were from African countries, 35 students were from European countries, 96 students were from Asian countries and 100 students were from Arabian countries (see Table 1). Students from Iraq, Syria, Lebanon, Jordan, Saudi Arabia, Qatar, Tunisia, Morocco, Mauritania, Sudan, Somalia, Palestine, Republic of Djibouti, Algeria, Comoros, Libya, Egypt, Kuwait, Yemen, Oman, and the United Arab Emirates were considered as the Arab Union category because all those countries joined the Arab Union and all of them have Arabic roots. African countries such as Zambia, Kenya, Niger, Nigeria, Senegal, Ghana,

Ethiopia, Benin, Eritrea, Sierra Leone, Mozambique, Madagascar, Democratic Republic of Congo, Burkina Faso, Chad, Uganda, Liberia, Tanzania, Burundi, Guinea, and Cameroon were considered as the Africa category in the current study. Besides that, Philippines, Kyrgyzstan, Afghanistan, Pakistan, Iran, Mongolia, Cambodia, Uzbekistan, Azerbaijan, Tajikistan, Kazakhstan, India, Turkmenistan, Bangladesh, South Korea, Myanmar, Georgia, Indonesia, and Thailand were considered as Asian countries and finally, Russia, Ukraine, Albania, Bosnia, Slovenia, Macedonia, Kosovo, Montenegro, and Greece are considered as European countries in the current research.

Instrumentation

As mentioned previously, the aim of this paper was to examine major reasons why international students choose Turkey. To achieve this aim, an online questionnaire was designed by the researchers.

First of all, researchers reached 11 international students who study in Eskişehir. They were from different countries (e.g. Ethiopia, Sudan, Malaysia, and the Philippines) even from different regions. They were interviewed why they prefer Turkey, especially Eskişehir, to get a higher education. In light of this information, the selection criteria for Turkey and Eskişehir were developed.

The questionnaire was preceded by a cover letter that explained the nature of the research, the estimated time necessary to complete the survey, the voluntary nature of participation, and a statement regarding informed consent. The main part of the questionnaire had two sections. The first section of the survey contained several demographic questions such as gender, marital status, department of study, country of origin and education level. Section 2 included two major statements to measure the most influential factor regarding international students' choice of Turkey and Eskişehir. Students were asked to select only one major factor which they considered as important in deciding Turkey and Eskişehir for study destination, separately. Participants answered the first statement about choosing Turkey and then they moved to the second question about choosing Eskişehir for higher education. All items were written in Turkish and translated into English. The translation of the items was reviewed by two researchers. Students who didn't understand the Turkish part of the survey can fill the English version.

Based on the literature review and personal experiences, the researchers created six categories which are living conditions, quality of education, scholarship, social environment, proximity to home country and others. Each category included several factors that influenced international students' decision to choose Turkey for higher education. For instance, living condition category included the safety of country and living cost in Turkey. Quality of universities in Turkey, job opportunities after graduation and accreditation of diploma factors are in the quality of education category. Family and friend recommendation and having an acquaintance in Turkey factors were grouped in the social environment category. Moreover, the proximity of home country category included selecting Turkey for the proximity and for Muslim country factors. Finally, the other option contained getting to know Turkish culture, getting citizenship in Turkey, a high number of international students and other factors.

For the Eskişehir section, there were four categories: quality of education, living conditions in Eskişehir, social environment and others. Quality of education category

consisted of better university campus life, good reputation of universities in Eskişehir and job opportunities after graduation factors. Living condition category included the low living expenses in Eskişehir, safety in Eskişehir and social life in Eskişehir. Family and friend recommendation and having an acquaintance in Eskişehir factors are grouped in the social environment category. The final category is 'other' category that included other answers not included in other categories.

To ensure face validity, a pilot study was administered. In the pilot study, the survey was sent to three international students whose opinions were asked about the statements and questions. The errors and unclear parts were identified and the questionnaire was revised. The final version of the survey was distributed to the students. Correspondence analysis is a technique that analyzes categorical data and transformed into a contingency table to identify the relationship between selection criteria and home country. Because the structure of data was not suitable for the internal consistency coefficient, only qualitative evaluations were applied for a reliability check.

Data Collection

The survey was administered online and the answers recorded via a professional survey site, Qualtrics. Qualtrics was appropriate for this web-based survey because it was convenient for respondents and included automated management and data compilation.

International students received information about the survey by email or through a social media webpage (Facebook). All participants had to read the informed letter and choose if they wanted to continue with the study or not when they clicked the survey link. The survey took approximately 10 to 15 minutes to complete for each participant.

Data Analysis

After conducting the survey, the data were analyzed via correspondence analysis. The purpose of the data analysis was to identify the factors influencing international student choice in selecting Eskişehir and Turkey. There were several steps employed to analyze the data. Demographic questions were included to obtain comparative results. Statistical Package for Social Science (SPSS) version 21.0 was used in the current study.

Correspondence analysis is a popular multivariate statistical method for using categorical data in a contingency table (Özdamar, 2013). This analysis transforms numerical information into a graphical display (Greenacre, 2000). Moreover, correspondence analysis is easy to apply (Shanka et al., 2006). This method only requires a contingency table of nonnegative data (Yavas, 2001). Hence, cross-tabulation of home country and selection criteria of Turkey and Eskişehir provided frequencies for the study.

The aim of the correspondence analysis is to demonstrate data visually in low-dimensional space (generally in two-dimensional space). Rows and columns in a frequency table are depicted as points and row and column proportions can be compared in a two-way table (Kara, Kaynak, & Kucukemiroglu, 1996).

As a result, correspondence analysis enables advance comparison of relationships between categories of nominal data in a contingency table (Yıldız, 2004).

There are three important features of correspondence analysis: row and column profile, mass values and chi-square distance. Chi-square distance was described as the distance between points in row profiles or column profiles in a p-dimensional space (Greenacre & Blasius, 1994: as cited in Yıldız, 2004). Instead of chi-square distance values, inertia statistics are more popular to demonstrate the variance in correspondence analysis. Mass value is another proportion value that indicates the importance of that dimension (Özdamar, 2013).

Results

In the current study, the main purpose was to investigate how selection criteria of Turkey and Eskişehir vary with respect to international students' home country. A correspondence analysis was conducted to detect relationships between home country and international students' selection criteria.

Influence of Home Country on Decision to Choose Turkey

The question asked to international students was why Turkey was so attractive for a higher education destination. The summary of frequencies with which several pull factors for Turkey was presented in Table 2. Majority of international students preferred scholarship and quality of education options. 38.4 % of the international students were preferred scholarship criteria while 22.8% of students thought that the quality of education was the most important factor. More specifically, international students believed that scholarship opportunities and education quality were two major pull factors for studying in Turkey. Choosing Turkey for proximity to home country is the third reason among six reasons with 15.6%. Only 6.1% of international students indicated that living conditions in Turkey were the strongest rationale behind their choice.

Table 2

Frequency of Selection Criteria of Turkey

Frequency	<i>n</i>	%
Living condition	17	6.1
Quality of education	64	22.8
Scholarship	108	38.4
Social environment	26	9.3
Proximity to home country	44	15.6
Other	22	7.8
Total	281	100

Fundamental dimension number can be calculated with the formula;

$$K = \min \{r-1, c-1\}; r = \text{number of rows and } c = \text{number of columns}$$

Because there are 6 rows (selection criteria) and 4 columns (home country), the ideal number of dimensions should be 5 in this section. However, SPSS computer program did not calculate the values for 5-dimensional space. It provided only inertia values for 3-dimensional space (see Table 3).

As shown in Table 3, dimension 3 did not have significant contribution to the total inertia value and it only has 0.001 proportion of inertia. First and second dimensions together explained the 99.99% of the inertia; hence, the two-dimensional model is most suitable for this data.

Table 3

Dimensionality for Turkey Selection Criteria

Dimension	Singular Value	Inertia	Proportion of Inertia	
			Accounted for	Cumulative
1	0.148	0.022	0.704	0.704
2	0.096	0.009	0.295	0.999
3	0.005	0.000	0.001	1.000
Total		0.031	1.000	1.000

Table 4 shows the factors influencing international students' decision to choose Turkey as a study destination. According to Table 4, 19 students from African countries prefer Turkey for higher education and 10 African students paid attention to the quality of education in Turkey more than the other criteria. Likewise, 13 European students came to Turkey for higher education because of scholarship opportunities. Moreover, the quality of education in Turkey was another important factor for European students. Only one European student selected living conditions and social environment criteria for their study choice. Most of the Asian students decided to move to Turkey because of the quality of education ($n=23$), scholarship opportunity ($n=37$) and proximity to their home country ($n=15$). Finally, 39 international students from Arabian countries prefer Turkey as a study destination for the scholarship that they have awarded. There are 19 students from Arab countries who chose the quality of education and the other 17 Arab students take proximity as a major factor for selecting Turkey.

Table 4

Criteria for Choosing Turkey and Home Country Contingency Table

Criteria	Home country				Total
	Africa	Europe	Asia	Arabian	
Living Conditions	2	1	6	8	17
Quality of education	10	12	23	19	64
Scholarship	19	13	37	39	108
Social Environment	6	1	8	11	26
Proximity to home country	7	5	15	17	44
Other	6	3	7	6	22
Total	50	35	96	100	281

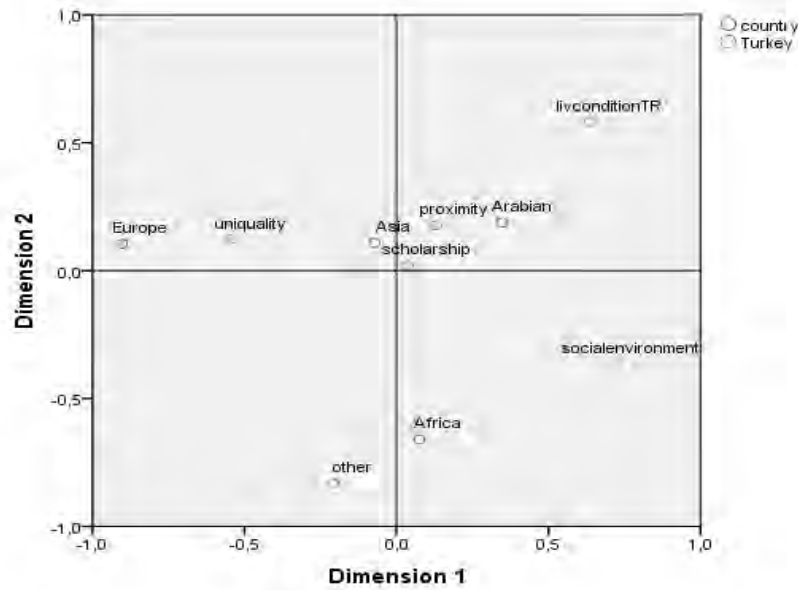
Table 5 displayed the relative contribution of each dimension as explained variance and cumulative variance. Dimension 1 explained 70.40% of variance and dimension 2 explained 29.50% of the variance. All dimensions together account for 99.99% of the total variance.

Table 5 also demonstrated the relative contribution of each selection criteria and each region to dimensions 1 and 2. All the contributions of each criterion and each region were acceptable because they were higher than 0.50. Living conditions, quality of education, scholarship opportunity, and social environment contribute to dimension 1 and proximity to home country and other criteria contribute to dimension 2. On the other hand, European and Arabian countries contributed to dimension 1 while African and Asian countries contribute to dimension 2 (see Figure 1).

Table 5

Relative Contribution to Dimensions for Choosing Turkey

	Mass	Dimension 1	Dimension 2	Total
Choice Criteria				
Living conditions	0.06	0.65	0.35	1.00
Quality of education	0.23	0.97	0.03	1.00
Scholarship	0.38	0.81	0.17	0.98
Social environment	0.09	0.86	0.14	1.00
Proximity to home country	0.16	0.44	0.54	0.99
Other	0.08	0.09	0.91	1.00
Region				
Africa	0.18	0.02	0.98	1.00
Europe	0.12	0.99	0.01	1.00
Asia	0.34	0.39	0.58	0.97
Arabian	0.36	0.84	0.16	1.00
Variance %		70.40	29.59	99.99
Cumulative variance %		70.40	99.99	100.00

Figure 1. Positions of Choice Criteria of Turkey and Home Country

Influence of Home Country on Decision to Choose Eskişehir

International students were asked to indicate the major reason for choosing an institution in Eskişehir. Table 6 shows the frequency of choice criteria in the selection of an institution in Eskişehir. The results demonstrated that the most selected options were living condition of Eskişehir and quality of education in Eskişehir with 33.1% and 31.3% respectively. In other words, international students prefer universities in Eskişehir because Eskişehir has good living conditions and the universities have a high quality of education. 18.9% of participants indicated that social-environmental impact is a primary driving force behind choosing Eskişehir. Finally, only 16.7% of international students preferred other option.

Table 6

Frequency of Selection Criteria of Eskişehir

Frequency	<i>n</i>	%
Living condition	93	33.1
Quality of education	88	31.3
Social environment	53	18.9
Other	47	16.7
Total	281	100.0

In this section, the results of correspondence analysis between selection criteria for Eskişehir and students' home country is shown. Ideal dimension for this analysis should be $\min \{(4-1), (4-1)\} = 3$. The output of the correspondence analysis for three-dimension was presented in the Table 7. According to the values in the table, two-dimensional space is acceptable.

Table 7
Dimensionality for Eskişehir Selection Criteria

Dimension	Singular Value	Inertia	Proportion of Inertia	
			Accounted for	Cumulative
1	0.173	0.030	0.825	0.825
2	0.077	0.006	0.164	0.989
3	0.020	0.000	0.011	1.000
Total		0.036	1.000	1.000

Beside selection criteria for Turkey, the reasons that international students prefer Eskişehir are the answer to another research question. While 23 students from the African region chose Eskişehir because of its living conditions, 14 African students claimed the quality of education was a major factor for selecting Eskişehir for higher education. When the European students were considered, 12 of them paid attention to living conditions of Eskişehir when deciding to move there. On the other hand, 9 international students from Europe indicated that the quality of education is the most crucial factor and 8 of them said that they have other reasons. Living conditions of Eskişehir (n= 32) and quality of education in universities (n =33) were two major factors for Asian students' choice in selecting institutions in Eskişehir. For international students from Arab union countries, 32 of them selected quality of education, 26 of them prefer living conditions and 25 of them chose social environment factors as a major impact of their study destination (see Table 8).

Table 8
Criteria for Choosing Eskişehir and Home Country Contingency Table

Criteria	Home country				Total
	Africa	Europe	Asia	Arabian	
Living conditions	23	12	32	26	93
Quality of education	14	9	33	32	88
Social environment	5	6	17	25	53
Other	8	8	14	17	47
Total	50	35	96	100	281

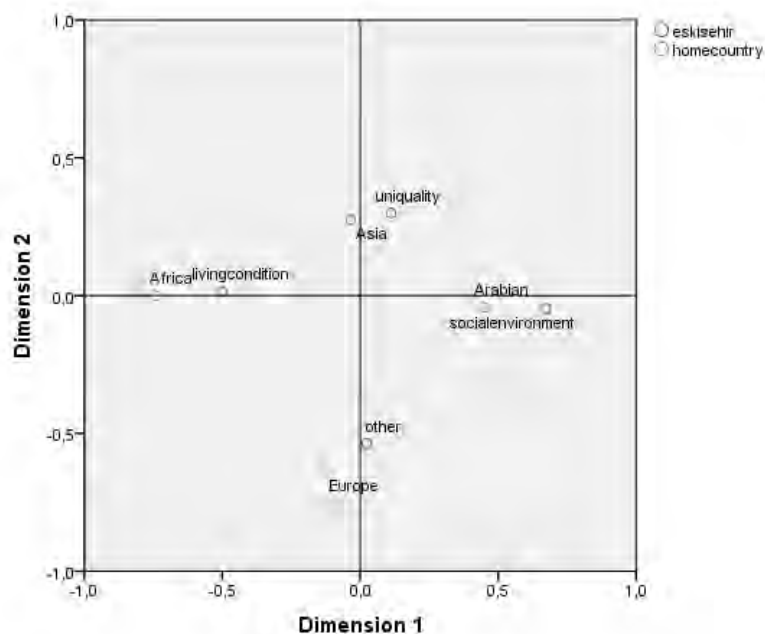
Table 9 showed the relative contribution of each dimension as explained variance and cumulative variance. Dimension 1 accounted for 82.50% while dimension 2 accounted for 16.40% of the variance. Cumulative explained variance of these two dimensions was 98.90%.

As regard to the choice criteria of Eskişehir, there are two dimensions and the contributions of each region and each choice criterion are higher than 0.50 and this indicated the acceptable results (see Table 9). Specifically, living conditions and social environment criteria contribute to dimension 1 and quality of education and other options contribute to dimension 2. In addition, African countries and Arabian countries contribute to dimension 1 and European and Asian countries contribute to dimension 2 (see Figure 2).

Table 9

Relative Contribution to Dimensions for Choosing Eskişehir

	Mass	Dimension 1	Dimension 2	Total
Choice Criteria				
Living conditions	0.33	0.99	0.00	0.99
Quality of education	0.19	0.23	0.73	0.96
Social environment	0.31	0.99	0.00	0.99
Other	0.17	0.00	0.97	0.97
Region				
Africa	0.18	0.99	0.00	0.99
Europe	0.12	0.08	0.89	0.97
Asia	0.34	0.03	0.91	0.94
Arabian	0.36	0.99	0.00	0.99
Variance %		82.50	16.40	98.90
Cumulative variance %		82.50	98.90	100.00

Figure 2. Positions of Choice Criteria of Eskişehir and Home Country

Discussion and Conclusions

In 2016, the number of the international student population in Turkey has grown by %10. From 2012 to 2018, the Turkish government and Council of Higher Education (YÖK) tried to make developments and provide financial support (e.g. Turkish scholarship) to attract international students in the global market. It is important to make more research on pull and push factors of international students in Turkey, and this may lead to developing suitable policies for them.

The purpose of this study was to investigate the importance of home country in international students' decisions to study in Turkey and specifically in Eskişehir. It revealed several reasons supporting the experiences of international students in Turkey with regard to their selection criteria for studying abroad. The findings from this study suggest that students from Europe prefer Turkey for higher education because of the quality of education. More specifically, international recognition of Turkish university diploma and academic quality of universities are important factors for European students in Turkey. This result was supported by Kondakci (2011) who indicated that academic quality rationale is prominent for students coming from Balkan countries. Because most of the European students in Turkey are coming from Balkan countries, similar conclusions are presented by Kondakci (2011) and the current research.

For African students, social environment is the most influential factor in choosing Turkey for studying abroad. Students from African countries think that family, friend, and acquaintance manipulate their decisions and their recommendations are crucial to select Turkey for a study destination. This conclusion demonstrates partial parallelism with Maringe and Carter (2007) and Padlee et al. (2010). Maringe and Carter (2007) conducted the study on African students in England and they found that those students prefer England for international recognition of British universities, easy application process and high quality of learning environment. In another study with African students in Malaysia, learning environment, customer focus and location of the institute were more important factors (Padlee et al., 2010). As a result, students from African countries indicated social rationales behind their choice of Turkey to study abroad.

On the other hand, the correspondence analysis results showed that Arab students and Asian students behave similarly in terms of deciding Turkey for education. International students from the Arabian union and Asia would more likely choose Turkey over other countries on a combination of factors such as scholarship opportunities, proximity to home country and better living conditions in Turkey. Türkiye Scholarship is the most popular financial aid for international students in Turkey. In addition to scholarship opportunity, cultural and geographical proximity to country of origin are also important for Asian and Arab students. Moreover, these students would prefer Turkey because of the low cost of living and safety. These results indicated that there is no single criterion for all international students; in other words, students from different regions have different opinions for choosing Turkey as a study destination. These findings are consistent with the SETA report for international students in Turkey (Özoğlu et al., 2012). This report demonstrated that students from central Asia indicated that they chose Turkey because it has geographical and cultural proximity to their own countries. In addition to proximity, these students also claimed that recommendation by relatives is another important factor (Özoğlu et al., 2012).

Moreover, SETA's report demonstrated that students from the Middle East would more likely choose Turkey for geographical proximity, a recommendation from acquaintance and the perception of Turkey as a powerful country (Özoğlu et al., 2012). Furthermore, the current research demonstrated consistent results with the study by Kondakci (2011). Kondakci (2011) conducted another research for international students in Turkey and the research revealed that students from Azerbaijan and Central Asia prefer Turkey because of proximity. Finally, students from Turkic republics set the high value of scholarship and academic quality (Kondakci, 2011). Nkoko (2016) wrote a thesis about international students in Turkey and this thesis revealed that Asian students believe scholarship opportunities and quality of education are more important factors for choosing Turkey. Somewhat surprisingly, Padlee et al. (2010) claimed that students from the Middle East would more likely choose Malaysia for quality of education and customer focus, and quality of education and facilities are crucial factors for central Asian students.

For the Eskişehir part of the study, the results revealed that African students care more about the living conditions of a city when preferring a higher education destination. Low cost of living, safety, and social life are important for African students in Eskişehir. Students from Asia have different results for choosing Turkey and Eskişehir. Asian students would more likely choose universities in Eskişehir for a higher quality of education which means these types of students think that quality of courses offered by institutions and quality of universities are the most influential factors for them. Besides, students from Arabian Union are more likely to make their choice based on the social environment. In other words, Arab students are affected by their friends, family, and acquaintances for choosing Eskişehir for education. Finally, the results demonstrated that European students prefer Eskişehir for other reasons such as job opportunities after graduation.

Different results from Turkey and Eskişehir section of the study maybe because of the different dynamics of regions. Eskişehir is a middle-size city and it is close to two metropolitan cities which are Ankara and İstanbul. The city contains a large number of international students and is known as a student-friendly city. The community is also open-minded and welcoming to other nations. Because Eskişehir has different characteristics (e.g. living condition and quality of education) than other Turkish cities, international students' primary drive for choosing Eskişehir may be different than for choosing Turkey in general.

James-MacEacher and Yun (2017) conducted a study to compare Chinese students and other students' pull motivations for selecting a Canadian institution. The results demonstrated that there are differences in sources of information used among Chinese students and students from other countries. Although these studies show attributions can be made using all this information, this highlights how erroneous it is to assume that every country can be analyzed in the same manner. It is possible that developmental level, geographical position, cultural backgrounds of the country may influence the results and may not provide a single pull motivation model for international students around the world. Alternatively, it may be the case that there is something in the position of Turkey in the internalization market and the different factors for choosing a public or private university. In addition to studies about international students in Turkey, there are several types of research that support the

current research results. Nachatar-Singh et al. (2014) demonstrated that students from the Middle East would more likely choose Malaysia because of safety, religion factor and cost of living. Moreover, Asian students preferred Malaysia for proximity to home country and low cost of living and education (Nachatar-Singh et al., 2014). In the Alfattal (2017) thesis, the author found that while students from the Middle East select the USA for peace, Asian students claimed that affordability (low tuition fee, living cost, and financial aid) and accessibility are more important than other pull factors. To conclude, inbound student mobility in countries is based on different rationales.

Turkey's education sector has not done well in the global market for international students. In Turkey, private universities generally decide to go for an international educational fair (Özoğlu et al., 2012). Public universities and YÖK do not have much policy to improve internationalization in higher education in Turkey. During the 2016-2017 academic years, there were 89,312 international students who enrolled in a public university in Turkey while the total number of international students in private universities was 18,635 (YÖK, 2017). Even though most of the international students in Turkey enrolled in public higher education institutions, there are gaps in research about selection criteria of international students in public and private universities in Turkey. Further work is needed to unravel this multivariate effect and to conduct this type of study; a multiple correspondence analysis is suitable.

Countries and institutions have realized that international students have considerable value for a university and an economy. International student mobility in Turkey is also important for internationalization because these students can bring economic and social benefits to an institution in Turkey. The current study disclosed important implications for private and public universities and Presidency of Turks Abroad and Related Communities (YTB). Private and public universities can use the results to update their English websites. In addition, Turkish universities which have the desire to attend an international fair or EXPO's (e.g. China Education Expo and ECHE Saudi Arabia) prepare different advertisements or brochure for different regions. Likewise, YTB may strategize international scholarship in a complex manner and provide different strategies for different countries.

Overall, this study suggests that international students from different countries have different opinions for choosing Turkey as a study destination. The research also points to the potential value of home country variables to affect pull factors for Eskişehir. It must be borne in mind that this study was only conducted on a small sample of international students in a middle-ranged city. Further research can be conducted with all international students in Turkey. It is also important to interview international students to understand the details of their selection process. Besides, university management should take into consideration internationalization and develop new strategies to attract international students from different regions. Finally, international students who are graduated from a Turkish university can be examined to determine which pull factors should be under consideration.

References

- Abubakar, B., Shanka, T., & Muuka, G. N. (2010). Tertiary education: An investigation of location selection criteria and preferences by international students—The case of two Australian universities. *Journal of Marketing for Higher Education*, 20(1), 49-68.
- Alfattal, E. (2017). *Globalization, internationalization, marketing, and college choice: key factors affecting international students' mobility* (Unpublished Doctoral Dissertation). California State University-San Bernardino, California.
- Australian Education International. (2001). *Overseas Student Statistics 2000*, Department of Education, Training and Youth Affairs, Commonwealth of Australia.
- Australian Education International. (2004, July). *Competitor analysis: Australia's competitors in international education for the USA, UK, Canada, and New Zealand update*. AEI-International Education Network, Commonwealth of Australia.
- Bowers, T. A., & Pugh, R. C. (1972, April). A Comparison of Factors Underlying College Choice by Students and Parents. *American Educational Research Association Annual Meeting*, Chicago.
- Chen, L. H. (2008). Internationalization or international marketing? Two frameworks for understanding international students' choice of Canadian universities. *Journal of Marketing for Higher Education*, 18(1), 1-33.
- Cohen, L., Manion, L., & Morrison, K. (2011). Surveys, longitudinal, cross-sectional and trend studies. In Cohen, L., Manion L., & Morrison, K. (Eds.), *Research Methods in Education* (pp. 256-289). Abingdon: Routledge.
- Çetinsaya, G. (2014). *Büyüme, kalite, uluslararasılaşma: Türkiye yükseköğretimi için bir yol haritası*. Retrieved from www.yok.gov.tr.
- Daily, C. M., Farewell, S., & Kumar, G. (2010). Factors influencing the university selection of international students. *Academy of Educational Leadership Journal*, 14(3), 59-75.
- Greenacre, M. J. B. (2000). Correspondence analysis of square asymmetric matrices. *Journal of the Royal Statistical Society: Series C (Applied Statistics)*, 49(3), 297-310.
- International Development Program of Australian Universities and Colleges (2002). *International students in Australian universities: Semester second national overview*. Canberra: IDP.
- James-MacEachern, M., & Yun, D. (2017). Exploring factors influencing international students' decision to choose a higher education institution: A comparison between Chinese and other students. *International Journal of Educational Management*, 31(3), 343-363.
- Jiani, M. A. (2016). Why and how international students choose Mainland China as a higher education study abroad destination. *Higher Education*, 74(4), 1-17.
- Joseph, M., & Joseph, B. (2000). Indonesian students' perceptions of choice criteria in the selection of a tertiary institution: Strategic implications. *International Journal of Educational Management*, 14(1), 40-44.

- Kara, A., Kaynak, E., & Kucukemiroglu, O. (1996). Positioning of fast-food outlets in two regions of North America: A comparative study using correspondence analysis. *Journal of Professional Services Marketing*, 14(2), 99-119.
- Kondakci, Y. (2011). Student mobility reviewed: Attraction and satisfaction of international students in Turkey. *Higher Education*, 62(5), 573-592.
- Krueger, R., & Casey, M. (2009). *Focus groups: A practical guide to applied science*. Thousand Oaks: California.
- MacGregor, K. (2014). Research universities in developing and middle-income countries. *International Higher Education*, 74, 4-6.
- Maringe, F., & Carter, S. (2007). International students' motivations for studying in UK HE: Insights into the choice and decision making of African students. *International Journal of Educational Management*, 21(6), 459-475.
- Mazzarol, T., Savery, L. K., & Kemp, S. (Eds.) (1996). *International students who choose not to study in Australia: An examination of Taiwan and Indonesia*. Canberra: AEIF Policy, Research and Analysis Section.
- Mazzarol, T., & Soutar, G. N. (2002). "Push-pull" factors influencing international student destination choice. *International Journal of Educational Management*, 16(2), 82-90.
- Mazzarol, T., Soutar, G. N., & Thein, V. (2001). Critical success factors in the marketing of an educational institution: A comparison of institutional and student perspectives. *Journal of Marketing for Higher Education*, 10(2), 39-57.
- Nachatar Singh, J. K., Schapper, J., & Jack, G. (2014). The importance of place for international students' choice of university: A case study at a Malaysian university. *Journal of Studies in International Education*, 18(5), 463-474.
- Nkoko, M. M. (2016). Yurtdışında eğitimin zorlukları: Türkiye, Akdeniz Üniversitesi uluslararası öğrenciler örneği (Unpublished Master's Thesis). Akdeniz University, Antalya.
- Organization for Economic Co-operation and Development [OECD]. (2016). *Education at a glance 2016*. Organization for economic Co-operation and development.
- Özdamar, K. (2013). *İstatistik paket programlarıyla veri analizi*. Eskişehir: Nisan Kitabevi
- Özoğlu, M., Gür, B. S., & Coşkun, İ. (2012). *Küresel eğilimler ışığında Türkiye'de uluslararası öğrenciler*. Ankara: SETA Publications.
- Özoğlu, M., Gür, B. S., & Coşkun, İ. (2015). Factors influencing international students' choice to study in Turkey and challenges they experience in Turkey. *Research in Comparative and International Education*, 10(2), 223-237.
- Padlee, S. F., Kamaruddin, A. R., & Baharun, R. (2010). International students' choice behavior for higher education at Malaysian private universities. *International Journal of Marketing Studies*, 2(2), 202-211.
- Radmard, S. (2012). *Türkiye üniversitelerinin uluslararasılaşma politikaları bağlamında uluslararası öğrencilerin yükseköğretim taleplerini etkileyen etkenlerin incelenmesi* (Unpublished Doctoral Dissertation). Ankara University, Ankara.

- Shanka, T., Quintal, V., & Taylor, R. (2006). Factors influencing international students' choice of an education destination—A correspondence analysis. *Journal of Marketing for Higher Education*, 15(2), 31-46.
- Soutar, G. N., & Turner, J. P. (2002). Students' preferences for university: A conjoint analysis. *International Journal of Educational Management*, 16(1), 40-45.
- Türkiye Bursları. (n.d.) Retrieved from <https://turkiyeburslari.gov.tr/tr/sayfa/hakkimizda/turkiye-burslari>
- Wilkins, S., & Huisman, J. (2011). Student recruitment at international branch campuses: Can they compete in the global market? *Journal of Studies in International Education*, 15(3), 299-316.
- Yavas, U. (2001). Patronage motives and product purchase patterns: A correspondence analysis. *Marketing Intelligence & Planning*, 19(2), 97-102.
- Yıldız, Z. (2004). Eğitim düzeyi ile suç türü arasındaki ilişkinin araştırılması. *Kuram ve Uygulamada Eğitim Yönetimi Dergisi*, 10(2), 278-291.
- Council of Higher Education. (2017). Report of international students in Turkey. Retrieved from <http://yok.gov.tr>



This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0). For further information, you can refer to <https://creativecommons.org/licenses/by-nc-sa/4.0/>