

Importance Level of Image Attractors in The Process of University Selection: An Application on Prospective University Students in Turkey

Üniversite Seçim Sürecinde Üniversite İmaj Çekicilerinin Önem Düzeyi: Potansiyel Üniversite Öğrencileri Üzerinde Bir Uygulama

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Özet

Bu araştırmanın amacı, lise öğrencilerinin görüşlerine dayalı olarak lise son sınıf öğrencilerinin üniversite tercihlerinde dikkate aldıkları üniversite imajı çekicilerinin belirlenmesidir. Araştırmanın çalışma grubu Kocaeli ili İzmit ilçesinde öğrenim gören 450 lise son sınıf öğrencisinden oluşmaktadır. Betimsel tarama modelindeki araştırmanın verileri araştırmacılar tarafından geliştirilen yükseköğretim kurumlarının imaj çekicileri ölçeği ile toplanmıştır. Araştırma sonucunda lise öğrencilerin üniversite tercihlerinde en çok üniversitenin kalitesi imaj çekicisini dikkate aldıkları görülmüştür. Bu imaj çekicisini sırasıyla; üniversitenin sosyoekonomik olanakları, üniversitenin kültürel olanakları, üniversitenin bulunduğu şehrin olanakları, üniversitenin fiziksel olanakları, üniversitenin bulunduğu şehrin yaşanılan yere uzaklığı, üniversite ile ilgili anlatılar ve üniversitenin tanıtım etkinlikleri imaj çekicileri izlemektedir.

***Anahtar Sözcükler:** İmaj çekicisi, üniversite imajı, üniversite seçim süreci, üniversite tercihi, potansiyel üniversite öğrencileri.*

Abstract

The purpose of this study is to determine the importance level of image attractors in the process of University Selection for Senior High-School Students. The participants were composed of 450 senior high-school students. Research data in the model of descriptive survey was collected through image attractors' instrument of higher education institutions developed by researchers. As a result of the research, it was observed that high school students mostly gave importance to the university quality image attractor in the process of university selection. This image attractor was followed by socio-economical opportunities of the university, cultural opportunities of the university, opportunities provided by the city where the university is situated, physical opportunities of the university, the distance between the residence city and the city where the university is situated, narratives about the university, and university promotion activities respectively.

***Keywords:** Image attractor; image of the university; process of university selection; university preference; prospective university student.*

1. Introduction

Phenomenon of globalization advanced through transportation and communication facilities has led to a cutthroat competition among universities in terms of student admission not only in their home countries but abroad as well. In such competition, bearing a positive image provides an important added value for universities in attracting qualified students. This is because candidates of the university consider the image of university as crucial criteria of selection when deciding the one among many universities.

University selection of high school students is a rational, pragmatic (Moogan & Baron, 2003) and highly complicated process affected by many factors (Briggs, 2006). Choosing a university is a challenge for both students and their families since university selection is considered one of the decisions that affects and changes life (Pampaloni, 2010). This decision determines the direction of the future life of individuals by influencing culture and career (Polat, 2012; Veloutsou, Lewis & Paton, 2004).

In many countries, students have the opportunity to choose the university for their study (Bringula & Basa, 2011). High school students who aim at studying at a university in Turkey face a rocky road. Besides having a high school diploma, students applying to university are required to take desired scores from the general central exams made every year by OSYM (Measurement, Selection and Placement Center) in order to continue their education at a higher education institution and to choose one among higher education institutions. Only high school graduate students with sufficient scores can make a university selection (OSYM, 2014). In the university admission process, the students make a selection out of the departments and the universities published on OSYM preference guide in line with their scores. This process is completed with the placement of students to university departments with central placement system according to the preferences of the students.

According to Bringula and Basa (2011), the opportunity to choose the university for the students results in competition among the schools in student applications. Universities compete with each other actively and search for the ways to attract the high-skilled students to their schools and fill up their quota. At this point, importance of creating a positive image for the university and maintaining this positive image come into play.

Realizing the factors affecting selection process and particularly image attractors is of crucial importance for the universities as well. In this sense, interest for the organizational image has spread rapidly among higher education institutions in recent years. Higher education institutions have to compete with each other constantly in order to become successful and maintain their success. In this competitive environment, it is extremely important for the educational organizations to have a positive image perception (Nguyen & Leblanc, 2001) because organizational image plays a key role in encouraging stakeholders and influencing them (Šontaitė-Petkevičienė, 2013). Consideration of factors affecting students' decision-making process and the outcomes of this process by universities can serve as guidance to universities in providing properties desired by the students in the universities (Pampaloni, 2010).

The perception of the image of the university consists of many factors. Kazoleas,

Kim and Moffit (2001) found that university image was formed as a result of *perception of the program, the emphasis on learning, quality of education, environmental conditions and sports facilities* in their study where they examined image perception. Arpan, Raney and Zivnuska (2003) stated that determinants of the image of the university were *size of the university, location, appearance, variety of services, personnel quality, equipment, student diversity, campus environment, success in sports, community-based services, institutional visibility and prestige* respectively. Polat (2011a) considered that the image of the university involved *the quality of the university, program, sport, general appearance and infrastructure, social environment, entertainment, housing and nutrition*.

The image of the university has been a subject of research from different aspects in recent years. For instance, how the image is perceived (Kazoleas et al., 2001; Polat, 2011a), influence of image on student satisfaction (Alves & Raposo, 2010; Brown & Mazzarol, 2009; Helgesen & Nettet, 2007), how image affects student's success (Polat, 2011b) and school selection (Cubillo, Sanchez, & Cervino, 2006; Ivy, 2001; Pampaloni, 2010) are among the researches in which university image is discussed.

University image is an important decision criterion (Nguyen & LeBlanc, 2001). Studies revealed that image perception was highly effective in decision-making process for the choice of university (Barich & Kotler, 1991; Cubillo, Sanchez, & Cervino, 2006, Ivy, 2001; Kazoleas et al., 2001; Pampaloni, 2010). When students find a university attractive, their assessment does not depend on one factor. As is university image, this assessment is multifactorial as well. According to Cerit (2006), a university needs to have a positive image in order to be preferable. For this reason, universities should be aware of the powers affecting the decision-making process of the students (Cain & McClintock, 1984), the strategies to be used to attract potential members (Pampaloni, 2010) and also university image attractors.

Image Attractors for Universities

Image can be defined as the picture that an audience has of an organisation through the accumulation of all received messages (Ind, 1997, p.21). This picture concerning the image of the organization can attract the target group. Attractive as an adjective means *having features or qualities that make something seem interesting and worth having* (OALD, 2014). Attractiveness means status of being attractive (TDK, 2014). Many properties or qualities regarding organizations can make individuals see the image of organizations attractive. In the selection of an organization, image attractors that are unique to the organization are used as criteria. These criteria that make individuals find the organizations' image attractive are image attractors.

The ones affected by the organization can assess the organization positively or negatively. When individuals assess the organization positively, they tend to find the image of this organization attractive. However, when they assess the organization negatively, their image perception towards the organization can be negative. Attractiveness can be considered as "valence perceptions" for organizations (Turban & Dougherty, 1992, p.740). In other words, attractiveness is the manifestation to what extent the organization attracts the individual (Yurchisin & Park, 2010). The situation is similar to the

university selection process. University image attractors that increase higher education institutions' attractiveness are defined and discussed below in the light of the literature.

Quality of the university. The academic reputation of the university seems to be quite effective in the university preferences of the students (Briggs, 2006). Academic programs offered (Gavcar et al., 2005; Moogan et al., 1999; Pampaloni, 2010; Veloutsou et al., 2004), instructors' profile (Bringula & Basa, 2011), reputation of the departments (Simoes & Soares, 2010), research reputation (Briggs, 2006), employment opportunities for university graduates (Briggs, 2006; Tatar & Oktay, 2006; Veloutsou et al., 2004) are among the university image attractors associated with the university's quality. Such factors as universities' academic programs, academic staff, education and services offered to students, scientific researches conducted at the university, qualification of university's graduates are among the "quality" dimension of university image attractors.

Socio-economical opportunities of the university. Scholarships offered to students by the university (Bringula & Basa, 2011; Ming, 2010; Tatar & Oktay, 2006) and part-time work opportunities (Coccaro & Javalgi, 1995) are known to be effective in university preferences of potential university students. Accommodation offered by the university for the students, nutrition, dormitory and part-time work opportunities, affordable living conditions in the university are within "Socio-economical opportunities" dimension of university image attractors.

Cultural opportunities of the university. Potential university students take into consideration social life attractiveness perceived in the university (Briggs, 2006; Capraro, Patrick, & Wilson, 2004) and cultural life in the university (Ramasubramanian, Gyure, & Mursi, 2002). Moreover, other studies put forward university student clubs (Tatar & Oktay, 2006; Veloutsou et al., 2004) and university sports facilities (Tatar & Oktay, 2006) have influence on the university selection of potential university students. Elements such as arts, sports, and recreational activities, free time activities of the universities offered for students are covered by the "cultural opportunities" dimension of the university image attractors.

Physical opportunities of the university. Veloutsou et al. (2004) carried out a study with senior high-school students in the United Kingdom and they found out that matters related to physical conditions of universities such as the library facilities of the university or access to computers affected university preferences of high school students. In other studies related to effect of university physical condition on university selection, quality of campus life in the university (Coccaro & Javalgi, 1995; Kern, 2000) and campus atmosphere (Tatar & Oktay, 2006) are ranged as other university image attractors that are considered important by the candidates. Elements such as facilities of university campus, safety of campus life, infrastructure of laboratory and classrooms are among the "physical opportunities" dimension of the university image attractors.

Opportunities provided by the city where university is situated. Opportunities provided by the city where the university is situated have an effect upon the university preferences of candidates (Absher & Crawford, 1996; Anılan, Çemrek & Anagün, 2008; Briggs, 2006; Gavcar, Bulut & Karabulut, 2005). Country image of the city where university is situated, opportunities provided for the people of that city, socio-cultural

structure, life quality of the city are among the “city opportunities” dimension of the university image attractors.

The distance between the home city and the city where university is situated. Students might assume that universities close to where they live are more preferable, and accessibility of university is effective in the university preferences of the students (Absher & Crawford, 1996; Briggs & Wilson, 2007; Bringula & Basa, 2011; Capraro, Patrick, & Wilson, 2004; Kern, 2000; Moog et al., 1999; Le Claire, 1988; Pampaloni, 2010; Polat, 2012; Simoes & Soares, 2010). The distance between the city where the university is situated and the city where the students live, the former being known by the candidates are among “the distance between the residence city and the city where university is situated” dimension of the university image attractors.

Narratives about university. It is observed that high school students take into account the opinions of others when they make university preferences (Wilkins & Huisman, 2013) and they decide according to what they hear in their periphery (Briggs, 2006; Brokemier & Seshadri, 2000). In this process, counselors, families, friends and teachers are the ones whose opinions are considered (Özyürek & Atıcı, 2002; Pampaloni, 2010; Simoes & Soares, 2010). The considerations of those graduating from the university, currently studying or working at university, family members or friends of the candidates about university are among the “narratives” dimension of university image attractors.

University promotion activities. Visiting university campuses convince the prospective university students whether to prefer that university or not (Simoes & Soares, 2010). University websites (Pampaloni, 2010; Simoes & Soares, 2010), university brochures (Briggs, 2006; Pampaloni, 2010; Simoes & Soares, 2010; Tatar & Oktay, 2006), university promotion activities (Le Claire, 1988; Pampaloni, 2010) are seen to affect the preferences of the candidates. Ming (2010) suggests that advertisements made by the university can affect university selection in his conceptual study. Mails sent from the University, brochures promoting the university, advertisements and news in media and virtual platforms, promotions organized by the university and university website are among the “promotion activities” dimension of university image attractors.

Research Questions

In this study, it is aimed to determine importance levels of image attractors taken into account by the students in university preferences based upon the views of senior high-school students. In this direction, answers to following questions have been sought:

- At which level high school students attach importance to university image attractors in university preferences?
- Do importance levels given to university image attractors in high school students’ university preferences vary according to the high school type they study at?
- Do importance levels given to university image attractors in high school students’ university preferences vary according to gender?

2. Method

This study is a descriptive survey model since it aims at detecting university image attractors for participants with regards to universities in a certain time. Descriptive models are research approaches aiming at describing a situation as it is if it still exists or as it was in the past (Karasar, 2008).

Participants

The participants of the research is composed of 450 senior high-school students (12th grade) studying at high schools in the Izmit district of the city of Kocaeli for 2013-2014 academic year. 211 male and 239 female students are involved in this study. Of those students, 251 students study at academic high schools whereas 199 of them study at vocational high schools. Among the 251 students studying at academic high schools, 180 students study at Anatolian High Schools, 36 students study at Science High Schools and 35 students study at General High Schools. Among the 199 students studying at vocational high schools, 61 of them study at Trade Vocational High Schools, 33 of them study at Health Vocational High Schools, 31 of them study at Religious Vocational High Schools, 31 of them study at Anatolian Teacher Training High Schools, 30 of them study at Anatolian Technical High Schools, 9 of them study at Industrial Vocational High Schools and 4 of them study at Girls' Vocational High Schools.

Data Collection Instrument

An instrument composed of 67 items was formed in order to determine the university image attractors taken into consideration by high school students in university preferences, based on student interviews and the literature (Becerem, 2010; Gavcar, Bulut, & Karabulut, 2005; Kazoleas, Kim, & Moffitt, 2001; Özgüven, 2011; Polat, 2011a; Polat, 2012; Sarioğlu & Özkan, 2009); a likert-type "instrument of higher education institutions' image attractors" composed of 58 items was developed by the researchers as a result of factor analysis. Items were scaled as five ranges in likert-type data collection instrument. Moreover, two questions were asked in order to learn high school type and gender of the students.

Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were applied on data set in order to present construct validity of instrument of higher education institutions' image attractors. EFA was first applied on data set composed of 67 items. Compatibility of data set to factor analysis was tested via Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity. The value obtained through a KMO test was 0.92. Chi-square was calculated as (χ^2) 16124,76 ($p < 0.01$) as a result of Bartlett's test of sphericity. Having significant result from Bartlett's test reveals that data creates multivariate normal distribution. These results can be interpreted as that data set is appropriate for factor analysis (Çokluk, Şekercioğlu & Büyüköztürk, 2012).

Nine items whose item factor loadings were found under 0.30 following first EFA were excluded from the instrument. Researchers envisaged that instrument with 67 items would reflect a structure with five factors before conducting EFA. However, in line with EFA results, it was thought that instrument reflected eight factors and EFA was conducted for the second time in order to test a structure composed of eight factors. As

a result of second EFA, it was observed that 57 items were gathered around eight dimensions whose eigenvalue was higher than one and items did not overlap. Analysis results are shown in Appendix 1. These eight dimensions explain 55,7% of total variance. It is considered adequate to have variance ratio between 40% and 60% for multi-dimensional patterns (Tavşancıl, 2005).

Eight dimensional structures obtained with EFA regarding higher education institutions' image attractors were tested with CFA. During CFA, required benchmarks for the compatibility of the model were examined. For the compatibility of model, χ^2/df (Chi-Square/Degrees of Freedom), CFI (Comparative Fit Index), NNFI (Non-Normed Fit Index), RMR (Root Mean Square Residual), RMSEA (Root Mean Square Error of Approximation) values were taken as benchmarks. According to analysis results, compatibility indexes were found as $\chi^2/df= 2.61$ ($p<0.001$), CFI= 0.96, NNFI=0.96, RMR=0.073, RMSEA=0.06. In terms of consideration of CFA indexes, whereas having χ^2/df value under three indicated perfect compatibility (Kline, 2005; Sümer, 2000), having CFI and NNFI values over 0.90 (Sümer, 2000), and having RMR value under 0.08 (Brown, 2006) and also having RMSEA value under 0.08 were accepted as the indicator of good compatibility (Jöreskog & Sörbom, 1993).

Secondarily, significance levels of t values of indicators were analyzed. Insignificant t values should be excluded from the analysis in confirmatory factor analysis. Yet, error variances of the indicators should be controlled prior to exclusion decision (Çokluk, Şekercioglu, & Büyüköztürk, 2012). Since error variances of observed variables were between 0.27 and 0.76 and t values of all of the observed variables exceeded 2.56, all the items were deemed as significant in ,01 level. For this reason, none of the items were excluded from the study.

Later on, modification suggestions were examined. During the examination, it was observed that errors of item 37 and item 44 had a connection and this modification made a significant contribution to χ^2 . When item 37 and item 44 were analyzed, it was found that these two items had significant connection and analysis was repeated after adding this modification to the model. Benchmarks are as follows for the compatibility of the last model: $\chi^2/df= 2.43$ ($p<0.001$), CFI= 0.97, NNFI=0.96, RMR=0.070, RMSEA=0.057. Revised final model is presented in Appendix 2.

As the first dimension found as a result of EFA and CFA consists of "high quality education", "reputation of academic programs", this image attractor dimension is called "*university quality*". Second dimension covering such university image attractors as "art activities", "sport activities" is called "*cultural opportunities of the university*"; third dimension covering university image attractors such as country image of the city where university is located, attraction of the university city and its periphery is called "*opportunities provided by the city where university is situated*"; fourth dimension including university image attractors such as "campus order and buildings of the campus", "laboratory facilities" is named "*physical opportunities of the university*"; fifth dimension covering "promotion days organized by the university", "university website" is called "*university promotion activities*"; sixth dimension involving such university image attractors as "transportation from home city to the university city", "being familiar with the university city" is called "*the distance between the home city and the city*".

where university is situated”; seventh dimension covering university image attractors such as “offering part-time working opportunity”, “dormitory and scholarship opportunities provided by the university” is called “*socio-economical opportunities of the university*”; eighth dimension involving university image attractors such as “narratives of former graduates”, “narratives of family members, friends, relatives having knowledge of the university” is called “*narratives about university*”. There are 13, 10, eight, nine, seven, three, four and four items in each of dimensions, respectively. Total variances explained by dimensions are %29.1, %5.8, %5.2, %4.2, %3.4, %3.0, %2.5 and %2.5 respectively. Cronbach’s Alpha value was found as 0.94 for the entire instrument. Cronbach’s Alpha values for the dimensions were found 0.93, 0.89, 0.86, 0.71, 0.83, 0.77, 0.74 and 0.79 respectively.

In the light of analyses conducted, a valid and reliable instrument composed of eight dimensions and 58 items was achieved.

3. Findings

The importance levels given by high school students to university image attractors in university preferences are shown in Table 1.

Table 1. Importance levels given by high school students to university image attractors in university preferences

University Image Attractor	M	sd
University quality	4.46	0.69
Socio-economic opportunities of the university	4.20	0.75
Cultural opportunities of the university	4.18	0.80
Opportunities provided by the city where university is located	4.17	0.71
Physical opportunities of the university	4.17	0.75
Distance between home city and university city	3.51	1.18
Narratives about university	3.42	0.98
University promotion activities	3.07	0.87

The results in Table 1 shows that the most influential attractor is the “university quality” (M=4.46). This university image attractor is followed by “socioeconomic opportunities of the university” (M=4.2), “cultural opportunities of the university” (M=4.18), “opportunities provided by the city where university is situated” (M=4.17), “physical opportunities of the university” (M=4.17), “distance between home city and university city” (M=3.51), “narratives about university” (M=3.42). According to the results in Table 1, the least influential attractor is “university promotion activities” (M=3.07).

Analysis results of independent samples t-test conducted in order to detect whether the importance levels given to university image attractors vary according to high school type among high school students in the university preferences are shown in Table 2.

Table 2. Importance levels given by high school students to university image attractors according to high school type

Scores of image attractors instrument of Higher Education Institutions							
	N	M	Sd	df	t	p	d
<i>University quality</i>							
Academic	251	4.59	0.58	448	4.49	0.00	0,42
Vocational	199	4.29	0.77				
<i>Cultural opportunities of the University</i>							
Academic	251	4.23	0.75	448	1.45	0.14	0,13
Vocational	199	4.12	0.85				
<i>Physical opportunities of the University</i>							
Academic	251	4.21	0.67	448	1.17	0.24	0,11
Vocational	199	4.12	0.85				
<i>Socio-economic opportunities of the University</i>							
Academic	251	4.22	0.70	448	0.90	0.36	0,08
Vocational	199	4.16	0.80				
<i>Opportunities provided by the city where university is located</i>							
Academic	251	4.29	0.64	448	3.92	0.00	0,37
Vocational	199	4.02	0.76				
<i>Distance between home city and the city where university is located</i>							
Academic	251	3.48	1.22	448	-0.50	0.61	0,04
Vocational	199	3.54	1.14				
<i>Narratives about university</i>							
Academic	251	3.50	0.96	448	1.97	0.04	0,18
Vocational	199	3.31	1.00				
<i>University promotion activities</i>							
Academic	251	3.06	0.84	448	-0.20	0.83	0,02
Vocational	199	3.07	0.91				

University quality dimension ($t= 4.49$; $p < .01$) has a significant difference in the importance levels given by academic and vocational high school students in university preferences. It is seen that academic high school students ($M=4.59$) attach higher importance to university quality image attractor in their preferences than vocational high school students ($M=4.29$). There is also significant difference in the opportunities provided by the city where university is situated dimension ($t= 3.92$; $p < .01$) in importance levels given to university image attractors by the academic and vocational high schools students. It can be said that academic high school students ($M=4.29$) attach higher importance to dimension of opportunities provided by the city where the university is located than the vocational high school students ($M=4.02$). There is also significant difference in the dimension of narratives about university ($t= 1.96$; $p < .05$) in importance levels given to university image attractors by the academic and vocational high schools students. Academic high school students ($M=3.50$) take into account the narratives about university dimension more than vocational high school students do ($M=3.31$).

Table 3. Importance levels given by high school students to university image attractors according to gender

Scores of image attractors instrument of Higher Education Institutions							
	N	M	SD	df	t	p	d
University quality							
Male	211	4.25	0.78	448	-5.90	0.00	-0,55
Female	239	4.63	0.54				
Cultural opportunities of the University							
Male	211	4.04	0.86	448	-3.39	0.00	-0,31
Female	239	4.30	0.72				
Physical opportunities of the University							
Male	211	3.98	0.85	448	-4.89	0.00	-0,46
Female	239	4.33	0.61				
Socio-economic opportunities of the University							
Male	211	4.08	0.81	448	-2.97	0.00	-0,28
Female	239	4.30	0.67				
<i>Opportunities provided by the city where university is located</i>							
Male	211	4.05	0.77	448	-3.29	0.00	-0,31
Female	239	4.27	0.63				
<i>Distance between home city and the city where university is located</i>							
Male	211	3.26	1.23	448	-4.19	0.00	-0,39
Female	239	3.72	1.09				
<i>Narratives about University</i>							
Male	211	3.22	1.02	448	-4.07	0.00	-0,38
Female	239	3.59	0.91				
<i>University promotion activities</i>							
Male	211	2.90	0.90	448	-3.85	0.00	-0,36
Female	239	3.21	0.82				

Analysis results of independent samples t-test conducted in order to detect whether importance levels given to university image attractors vary according to gender among high school students in the university preferences are shown in Table 3. There are significant differences in all dimensions between the importance levels given to image attractors by male students and by female students. Female students take into account all of the university image attractors more than male students do in the selection of university.

4. Results, Discussion and Suggestions

In this study, image attractors for the prospective university students in the process of university selection are determined as “university quality”, “socio-economical opportunities of the university”, “cultural opportunities of the university”, “opportunities provided by the city where university is located”, “physical opportunities of the university”, “distance between home city and university city”, “narratives about university” and “university promotion activities”.

When university image attractors are concerned, there is no single factor that students take into consideration. Like university image, this evaluation is multi-faceted. In the process of university selection, students take into account a number of image attractors. Therefore, universities should be aware of the variables that affect the decision-making process (Cain & McClintock, 1984), the strategies used to attract potential

members to the organization (Pampaloni, 2010) and other university image attractors.

The results revealed that attractors such as “distance between home city and university city”, “narratives about university” and “university promotion activities” had less impact on the selection process of prospective students than the attractors “university quality”, “socio-economical opportunities of the university”, “cultural opportunities of the university”, “opportunities provided by the city where university is located” and “physical opportunities of the university”. Among these dimensions, the most influential one is the “university quality”. This finding of the study is consistent with other study findings regarding the decisions of prospective university students in Scotland, Northern Ireland and England (Moogan et al., 1999; Veloutsou et al., 2004) and the USA (Pampaloni, 2010). Other studies from Scotland (Briggs, 2006), Portugal (Simoes & Soares, 2010) and the Philippines (Bringula & Basa, 2011) also have similar findings.

It is obvious that current and prospective university students from different countries give importance to the quality of university. Thanks to a prestigious and promising degree received upon completing quality programmes offered by professional academic staff, universities might get more applications, fulfill their registration quotas and attract more qualified students.

The importance level given to university image attractors by high school learners varies according to the high school type. Students of academic high schools give importance to the attractors “university quality”, “opportunities provided by the city where university is located” and “narratives about university” more than vocational high school students do, which gives information regarding the differences between expectations of academic and high school students in different areas. In addition to this, the importance levels given to university image vary according to gender. Female students took into account all dimensions of image attractors more than male students, which shows that females attach more importance to image attractors more than males do.

In conclusion, universities need to evaluate themselves taking into account their strengths and weaknesses in terms of image attractors if they are to receive more applications, fulfill their registration quotas and attract more qualified students.

This study is not without limitations. It was conducted in Kocaeli, a city in northern Turkey where industry is developed and people’s income levels are high. Kocaeli is also a popular destination for internal immigration and surrounded by other universities in nearby cities. Some recommendations for future research can be conducting similar studies in different cities in Turkey and/or making international comparisons, which can enable us to understand the image attractors that high school learners take into consideration in both national and cross-national contexts providing a guide for universities in the field.

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Appendix 1. EFA results of instrument of higher education institutions' image attractors

Item	Uni. quality	Cultural opp.	Opportunities of city	Physical opportunities	Promotion activities	Distance	Socioeconomic opp.	Narratives about University
I.43	,761							
I.56	,728							
I.49	,712							
I.46	,711							
I.62	,699							
I.61	,694							
I.52	,683							
I.59	,671							
I.9	,656							
I.39	,654							
I.36	,651							
I.41	,626							
I.58	,613							
I.44		,765						
I.37		,729						
I.67		,695						
I.40		,693						
I.34		,691						
I.47		,655						
I.53		,592						
I.54		,486						
I.57		,471						
I.65		,434						
I.33			,720					
I.63			,652					
I.50			,638					
I.51			,628					
I.2			,625					
I.24			,615					
I.64			,456					
I.45			,443					
I.6				,638				
I.26				,591				

Item	Uni. quality	Cultural opp.	Opportunities of city	Physical opportunities	Promotion activities	Distance	Socioeconomic opp.	Narratives about University
I.3				,574				
I.8				,548				
I.20				,543				
I.4				,534				
I.25				,459				
I.16				,416				
I.11				,415				
I.60					,691			
I.1					,691			
I.32					,642			
I.19					,624			
I.5					,600			
I.29					,600			
I.23					,558			
I.14						,832		
I.12						,786		
I.17						,670		
I.48							,590	
I.7							,569	
I.15							,464	
I.31							,378	
I.42								,724
I.30								,713
I.55								,644
I.18								,631
Eigenvalues	16,88	3,37	3,04	2,41	1,97	1,77	1,46	1,38
Variances explained (%)	%29.1	%5.8	%5.2	%4.2	%3.4	%3.0	%2.5	%2.5
Total variance explained (%)	%29.1	%34.9	%40.1	%44.3	%47.7	%50.7	%53.2	%55.7
Cronbach's Alpha Values	0.93	0.89	0.86	0.71	0.83	0.77	0.74	0.79

Appendix 2. CFA diagram

