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An investigation of the factors determining student destination choice for higher education in the United Arab Emirates

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Previous studies on the destination choices of international students have mainly focused on the mobility of students from non-English-speaking countries to English-speaking countries, with limited attention being paid to the investigation of the factors that determine the flow of international students in emerging education hubs in the Middle East. As a piece of country-specific research, this study attempts to explore why and how international students travel to the United Arab Emirates (UAE) for higher education. The study uses, as its theoretical framework, the push–pull factor theory in determining the destination choice of international students, while the analytic hierarchy process method is employed to examine the relative importance of these factors in influencing the choices of the students. Given the highly competitive nature of transnational higher education markets, this study is of particular importance for educational authorities and higher education institutions in the UAE to gain a better understanding of the complex factors involved in students' decision-making, which will enable them to determine recruitment and marketing strategies for attracting international students. The findings contribute to a deeper and more comprehensive understanding of the higher education market in the UAE.

Keywords: student destination choice; international education; push and pull model; analytic hierarchy process (AHP); United Arab Emirates

Introduction

Worldwide demand for transnational higher education continues to rise and the issue of the flow of international students has assumed greater prominence over the last two decades (Ahmad 2015; Foster 2014). According to the statistics released by the United Nations Educational, Scientific and Cultural Organisation (UNESCO), the number of students who chose to study outside their country and move to another country had increased from 1.3 million in 1990 to 4.3 million in 2011, demonstrating a new generation of mobile young people eager to learn, and expand their horizons (UNESCO 2013). Traditionally, the directional flow of international students has been from the Asian continent to countries belonging to the OECD (Organisation for Economic Co-operation and Development), and, in 2013, the top five countries hosting the largest numbers of international students were (in rank order) the USA, the United Kingdom, France, Australia and Germany (UNESCO 2014). However, recent geopolitical, social and global economic events have contributed to a decline

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in student enrolment in these traditional destinations and begun to move in new directions. In particular, students are choosing to pursue higher education abroad in other countries, such as Malaysia, Singapore and the Middle East (Singh, Schapper, and Jack 2014; Wilkins, Balakrishnan, and Huisman 2012). Each of these higher educational players has taken measures to enhance their respective environments and actively market themselves for receiving international students (Knight 2013).

While Western countries have been the major recipients of international students and dominate the market share for overseas higher education, the Middle-East countries, in their attempt to establish themselves as a new emerging higher education hub, have taken considerable action in promoting and designing policies to attract more international students (Wilkins, Balakrishnan, and Huisman 2012). Of the estimated 100 branch campuses currently operating worldwide, over one-third are in the Arab region. The United Arab Emirates (UAE) is one such example, in that it is aggressively promoting higher education through the establishment of many private institutions and full-fledged international branch campuses. The majority of these branch campuses were opened in the last decade with the UAE having the highest number – 40 branch campuses across five emirates – followed by Qatar with eleven, Bahrain with three, Yemen with one and Saudi Arabia with one (The National 2013). Aided by the government's strategic national investment in capacity building, the UAE is gaining an increasing number of international students – 34,122 in 2013 (Gulf Business 2014). The majority of these students come from various countries in the Middle-East and North African region, African continent, European countries and Central and Eastern European regions (UNESCO 2014). The number of students moving from developing countries in Asia is also observable.

Despite the growing research interest in international students' higher education destination choice (Ahmad 2015; Forsey 2012; Naidoo 2012), and ignoring the subtle growth in other geopolitically important regions (Wilkins, Balakrishnan, and Huisman 2012), very little is known about the factors influencing the flows of students from other parts of the world to the Middle-East region, in general, and to the UAE, in particular. Most of the research in this field tended to concentrate on the choice criteria of students to study in English-speaking countries (Maringe and Carter 2007). The enormous growth in the number of international students choosing to study in newly emerging educational hubs, for example, students opting to study in the UAE, has created a new trend. In an effort to redress this knowledge shortfall, the research questions that this study seeks to answer are (a) what are the factors that may influence the decision of international students to select the UAE as their country of choice for tertiary education and (b) the relative importance of the factors that are considered when making this decision. For the purposes of this study, international students are defined as students who have crossed the national border to the UAE for tertiary education, have not attended secondary or preparatory education in the UAE and are not UAE domiciled. The term 'tertiary education' adopts the United Nations Educational, Scientific and Cultural Organisation (UNESCO) definition of tertiary education as promulgated in the International Declaration of Education issued as a culmination of UNESCO's conference held between 5th and 9th October 1998. According to the above declaration, tertiary education includes 'all types of studies, training or training for research at the post-secondary level, provided by universities or other educational establishments that are approved as institutions of higher education by the competent state authorities' (UNESCO 1998, 19).

Literature review

Push and pull models of international student destination choice

Most of the research on the mobility of international student destination choice tends to concentrate on the movement of students from non-English-speaking countries to English-speaking countries, which is influenced by multiple push and pull models. These models have been used to understand the international flows and reasons behind the choice of international students to pursue their education beyond their national boundaries (Eder, Smith, and Pitts 2010; Mazzarol and Soutar 2002). The push factors are factors associated with the home country environment considered by students as being unsatisfactory, thus influencing them to leave their country to look elsewhere to undertake tertiary education. These may include a lack of capacity of, and opportunities provided by the local educational institutions in the home countries, lower quality of education, lack of availability of specialisation programmes, limited access to funding and employer preference for overseas qualifications (Ahmad 2015; Altbach 2004; Chen 2007; Lee 2014). However, the pull factors include what potential students may consider to be attractive features in the host country, and those most often mentioned in the literature include the reputation of the institution and/or country, exchange rate, lower cost/fees and cost of living, opportunity to experience a new and different culture, English-speaking environment, the policies of the host country's government concerning the recruitment of international students and the quality of the programme and course (Maringe and Carter 2007; Pimpa 2005; Singh 2014; Wilkins, Balakrishnan, and Huisman 2012). A further set of factors that have emerged in more recent literature include the strong influence of both past social relations and family ties (Foster 2014).

One of the earliest studies on the factors that influence the international flow of students is by McMahon (1992) who explained the movement of international students from 18 developing countries to the USA during the 1960s and 1970s by testing an out-bound or 'push' model and an inbound or 'pull' model. The level of economic strength by the government of the developing country, priority of educational opportunities and the availability of educational opportunities in the home country were named as push factors, while pull factors included factors such as economic, political or cultural links between the home and host countries, and the host nation's support of international students via scholarship and other types of assistance. One of the most cited studies in this field is that of Mazzarol and Soutar (2002), which examined the motivations of 2485 international students from Indonesia, Taiwan, China and India who moved to Australia to pursue their higher education. Using a similar approach, Mazzarol and Soutar (2002) concluded that there are various reasons why students choose to pursue their studies abroad. The push factors identified are a perception that an overseas course of study is better than a local one, difficult to gain entry in the home country, the programme in which the student wished to enrol was not available at home, wanting to gain a better understanding of the West and an intention to migrate after graduation. The pull factors most often mentioned in the study include the reputation or profile of the host country, parental influence and personal recommendation, the costs of studying and living, environmental aspects of the host country, such as climate, the lifestyle and weather, geographical proximity and social links. The findings of the research by Mazzarol and Soutar (2002) suggested that in order for host governments and their institutions of higher education to attract a greater number of international students, they need to consider the importance of these 'push-pull' factors that influence students' study destination choice.

Maringe and Carter (2007) researched the push and pull factors of African students' choosing the United Kingdom as their study destination for higher education. The findings of the study revealed that the push factors that students consider important in their decision-making include uncertainty in economic conditions, political instability and lack of local capacity within the countries of origin. According to the authors, the inadequate supply for higher education in African countries has made African students choose to study overseas either willingly or unwillingly. On the other hand, the primary pull factors that the students take into consideration when deciding on the UK for higher education are international recognition, easy application process, excellent teaching and learning environment and availability of part-time work to support their studies. Despite highlighting new findings regarding the push-pull model of student destination decision-making, the authors also reported that the main obstacles and enabling factors to student mobility are costs, visa restrictions and frequent changes in regulations, fear of not being able to find suitable part-time work, failure to meet course targets, fear of failure and negative aspects of environmental influences. The research developed a synthesis model that incorporates the dynamic decision-making process and suggested six elements influencing the decision of international students to study abroad. These are push factors, key influencers, pull factors country level, pull factors institutional and course programme level, risk and anxieties and experiential dissatisfiers.

In a similar field of study, Eder, Smith, and Pitts (2010) explored the push and pull factors in influencing the decision of international students from Austria, Germany, Japan, Brazil, Spain, Poland, Thailand and the Republic of Slovakia to study in the USA. The results indicated that personal growth, language and future career emerged as the primary push factors. Studying abroad gave the international students an opportunity to be more independent and to gain experience in a foreign country (Eder, Smith, and Pitts 2010). These skills and experiences may create a competitive edge and add value to their resumes. On the other hand, three primary pull factors – overall image and prestige of the institution, physical and learning environment and the American culture and climate – were identified as attracting international student enrolments. The authors claimed that these three underlying pull factors are interrelated. The institution is important because it provides students with both their academic and social environments. The physical geography frames the living environment and opportunities for other travel experiences while studying in another country. Finally, the climate and culture are significant, as they shape the actions of the people with whom the students interact, including professors, administrators and colleagues. The authors then concluded that an institution that wanted to attract more international students needs to develop effective and specific marketing programmes and extensive promotional strategies in targeting the enrolment of potential students.

Rudd, Djafarova, and Waring (2012) explored the process and factors influencing international students studying at a Business School in the UK and offered some useful insights into why Chinese students choose the UK as their study destination. The research findings revealed the significant influence of the UK and its reputation with respect to education, the need to gain an understanding of the Western culture to support career aspirations, the appeal of the institution, the school image and image of the city as push-pull factors influencing student decision choice. This is congruent with the research conducted by Mazzarol and Soutar (2002), and Cubillo, Sanchez, and Cervino (2006). Because of the small sample size from only one business school, it may not be possible to generalise the findings of Rudd, Djafarova, and

Waring (2012) to other business schools; however, it could be extended across a wide range of universities to make it more generalisable.

The study by Zheng (2014) who analysed a large panel data set of the flow of international students from 42 countries to the UK for higher education offers interesting results. The findings revealed that the home country's economic condition and demographics, relative exchange rate, UK export performance to the home countries, historic/linguistic link and the preferential policies of the UK government are the important aspects that attract the flow of international students to the UK. However, these antecedents are varied between the two home country groups. A wide variety of economic, social and political factors are all important to international students from developing countries, while home country economic wealth and population, and trade links are more important than the other factors for students from developed countries. Despite the new findings regarding the push-pull models of student destination choice, the analysis of aggregate data at the country level is unable to identify how the factors relating to the individual or university (e.g. university quality and academic reputation, course structure and tuition fees) influence the individual decisions of the UK international students.

The literature reviewed above explores the study on the destination choice of international students to the Western or English-language speaking countries, such as the United Kingdom, the USA and Australia. In examining international students who chose to study in emerging economies, such as Hong Kong, Malaysia and Singapore, Kell and Vogl (2012) identified the pull-push factors, such as cheaper alternative to the American, European and Australian universities, safety and security, strong reputation of these nations and countries and locations in which English is widely spoken and used as well as where there are opportunities for work, settlement and migration as reasons for their study destination. Another study showed that linguistic, geographical proximity and cultural connections can explain the stability over time in the increased number of international students who chose to study in Malaysia, many of whom come from Indonesia, China and the Arab countries (Singh, Schapper, and Jack 2014).

It is interesting to note that although the push-pull model has often been applied as the theoretical framework of many studies and has proven to be an effective model for studies examining the movement of international students, it neglects the nature of the mobility process on the micro level and the personal characteristics of students are largely ignored (Lee 2014; Wilkins, Balakrishnan, and Huisman 2012; Li and Bray 2007). Individual international students might respond to different push-pull factors in various ways (Hemsley-Brown 2001). The decision criteria and choice of students to study abroad may vary among the national or ethnic groups and the socio-economic status, which leads to a unique set of influences and considerations that affect their choice of study destination and institution. In a comparative study of students from Taiwan and the European Union (EU), Davey (2005) found that Taiwanese students chose to study abroad because they considered the international acceptability and recognition of the quality of education in the United Kingdom to be a tremendous benefit for their future investment. On the other hand, students from the EU chose to come to a similar destination mainly because it provided them with an opportunity to learn and improve their English and the British cultural traditions. The outcome of decision-making is a choice and both come under the influence of a variety of aspects including the broad context in which the decision is made, the environmental, organisational and individual preference, which mark the individual's internal value systems and

perceptions (Maringe and Carter 2007). The study upon which this paper is based is inspired by the recent flow of international students to non-English-speaking countries, particularly in the UAE, a new emerging destination for studying abroad. These motivational divergences have important implications for strategic international student marketing, recruitment and retention. Although very little is written about the movement of international students to non-Western countries, it is apparent that a greater number of students have started choosing to study abroad in the Middle-East region and because this trend continues to rise annually (Lane-Toomey and Lane 2013), research in this area is imperative.

Research methodology

The research context

The UAE has implemented various policies to promote itself as a knowledge and education hub in the region. These policies have been developed as the country is in the process of moving from an oil-based economy to a knowledge/services-oriented economy. The desire to be globally competitive in the knowledge economy and the goal of becoming a regional hub for higher education have led the UAE to target the development of international branch campuses. One of the aims is the attraction of international students from around the world, generally, and from the Arab region, in particular, to study in the UAE. According to the Knowledge and Human Development Authority (KHDA) Report 2014, most of the international students are studying in Dubai, with the majority of them enrolling in private institutions. With the growth in the number of international students coming to the UAE for the purpose higher education, very little research has addressed the factors influencing their destination choice, and, specifically, in choosing the UAE to pursue their tertiary education. The present study's attempts to fill these knowledge gaps and extend the current literature are therefore timely and worthwhile. Understanding the international students' decision-making criteria for choosing a study destination is thus of crucial strategic importance to all stakeholders in the international education sector (e.g. industry practitioners, government officers, policy-makers and institutional administrators). By understanding the decision-making criteria of international students who travel beyond their national country borders to the UAE for tertiary education, the educational authorities, such as the Ministry of Higher Education and its related agencies, can focus on their recruitment policies, strengthen their promotional and marketing strategies to cater to the needs of the international students, develop the image of the institutions and country and market their competitive advantages over others. Likewise, individual institutions could consider what the key factors of international students are and then implement the appropriate strategies to attract them.

An overview of analytical hierarchy process (AHP)

The decision to choose to study abroad is a complex process, which includes the decision to explore the possibility of studying abroad, choice of country, programme to study and institution selection (Maringe and Carter 2007; Eder, Smith, and Pitts 2010). The importance of each factor will differ from one to another. Individual international students might react to different push and pull factors in different ways. The choice is time consuming, sophisticated, multistaged, involves significant expenses,

has high personal risk and requires an evaluation of a wide range of alternatives (Pimpa 2005). The Analytical Hierarchy Process (AHP) provides a means of prioritising the various elements in the hierarchy, thereby helping governments and industry practitioners to focus on the most important matters (Cheng and Li 2001). The AHP methods structure the decision process into a hierarchy and the decision-making involves choosing an option from different alternatives. Through a set of pairwise comparisons at each level of the hierarchy, a matrix can be developed, in which the entities indicate the strength with which one element dominates another with respect to a given criterion. The AHP is a principle of measurement through pairwise comparisons and relies on the judgement of experts to derive the priority scales. These scales measure the intangibles in relative terms. The comparisons are made using a scale of absolute judgement that represents how much more one element dominates another with respect to a given attribute. The main concern of the AHP is dealing with inconsistencies arising from the judgement and improving this judgement (Vinodh, Shivraman, and Viswesh 2012). It judges and selects the elements/concepts, which have a greater influence on the predetermined objective. The AHP has been used to accurately evaluate the influence of the criteria in terms of goals. Figure 1 presents the outline of the AHP method employed in this research.

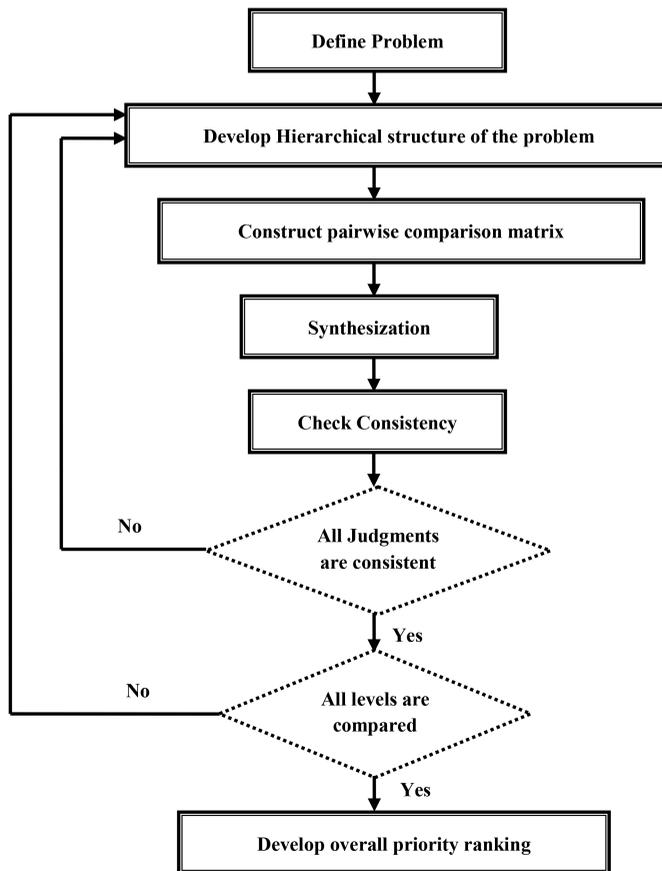


Figure 1. Outline of the AHP method applied.

Recently, there has been renewed interest in the AHP as an emerging solution to the complex real-world and multi-criteria decision-making problems (Drake, Lee, and Hussain 2013; Ishizaka, Pearman, and Nemery 2012; and Yang and Shi 2003). The AHP has been successfully implemented in various fields and widely used in industry settings. For example, Ghodspour and O'Brien (1998), Korpela, Lehmusvaara, and Tuominen (2001) and Lee and Hsu (2004) implemented the AHP in logistics management; Braglia, Gabbrielli, and Miconi (2001), Çebi and Bayraktar (2003) and Bertolini and Bevilacqua (2006) applied it in the manufacturing sector; Lee and Kwak (1999) and Kwak and Lee (2002) in healthcare management; Kurttila et al. (2000), Masozera et al. (2006) and Malik, Abudullah, and Hussain (2015) in environmental management; Radasch and Kwak (1998) and Kwak, Lee, and Kim (2005) in marketing discipline and Ngai and Chan (2005), Grimaldi and Ripa (2011) and Hussain et al. in knowledge management. Over the years, the AHP has become one of the most widely used tools for decision support for researchers and decision-makers (Taticchi et al. 2015), given that the results of this method are more accurate and more informative than the numeral assignment method (Cheng and Li 2001); therefore, the AHP is considered appropriate for this study.

Developing the hierarchical structure

The purpose of the research is to identify and prioritise the factors determining the choice of students to pursue their higher education in the UAE. As the push-pull model of international student destination choice was used as the theoretical framework of this study, a list of 40 factors influencing the destination choice of international students were identified and generated from various studies (e.g. Chen 2007; Cubillo, Sanchez, and Cervino 2006; Lane-Toomy and Lane 2013; Lee 2014; Maringe and Carter 2007; Mazzarol and Soutar; 2002; Zheng 2014), and integrated under seven dimensions (factors or attributes) – learning environment, cost issues, institutional reputation, personal development, recommendation, sociocultural proximity and government initiatives. The multi-criteria attributes are organised in a hierarchical structure with the highest level of the hierarchy being the overall goal, that is, to identify and prioritise the factors determining a student's choice. The seven determined factors are represented as the criteria in level 2 and each factor is further divided in level 3 (sub-criteria) to illustrate common manifestations of the proposed model. A simple three-level hierarchical structure is constructed in Figure 2.

The questionnaire was pilot tested with a group of seven international students, two experts from the marketing department and three academicians in the relevant field from two private institutions in the UAE. Some of the items had to be rephrased to make them more representative of the intended constructs. Steps were taken to ensure that the selected evaluators had sufficient experience and knowledge of the research topic. This has given us confidence about the validity of the proposed research framework. In line with suggestions from Saaty (2008), the geometric mean approach was preferred over the arithmetic mean to combine the individual pairwise comparison judgements to obtain the consensus pairwise comparison judgement matrices for the entire team.

Sampling design, administration and questionnaire development

The target respondents comprised the international students, who are defined in this study as students who have crossed the national border of their home country and

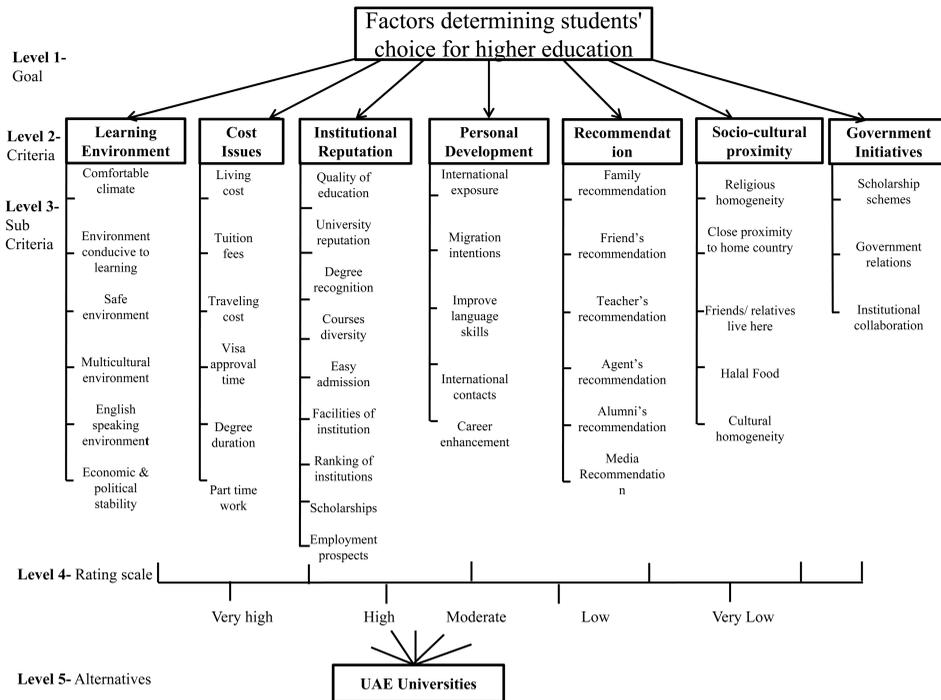


Figure 2. AHP model for prioritising students' choice for higher education.

moved to the UAE for the purpose of tertiary education, have not attended secondary or preparatory education and are not UAE domiciled. The students are currently undertaking formal education courses or programmes of study at any institution of higher education in the UAE. To reach the target population, the Office of Student Advisors in charge of support and advisory services to the current students at the university was contacted by telephone. The officer-in-charge agreed to participate and provide the lists of name and telephone contact numbers of international students, as requested. Two private institutions of higher education, one of which is located in Abu Dhabi, the capital of the UAE, and the other in Dubai, the financial centre of the country, agreed to participate in this study. These two emirates are the biggest among the seven emirates of UAE. Ranking of the universities, variety of degree programmes, enrolment statistics, university reputation and the international accreditation status have been used as the criteria for universities selection, and both institutions are among the largest private institutions hosting a high number of enrolments of international students. The respondents were selected through purposive and snowball sampling to ensure nationality, study discipline and gender diversity of the international students enrolled in these institutions. An attempt has been made to select students from different regions, for example, students from Europe (26%), Africa (27%), Latin America (19%) and South Asia (28%). Sixteen students, both from the undergraduate and postgraduate degree programmes, were selected from each of the institutions.

According to Cheng and Li (2001) and Hussain and Malik (2015), small sample size is acceptable from the AHP methodology perspective. The AHP solves the survey fatigue problem by only asking participants to compare the importance of two needs at a time. These comparisons are called judgements. A judgement of only two items is much easier for the participants to complete than comparing a list of 20 items. The judgements we apply in making paired comparisons combine logical thinking with the feeling developed from the experience. Pairwise comparisons generate more information and so improve judgement consistency (Saaty 2012). Thereafter, the sample size of 30 respondents is considered to be satisfactory for this research (Drake, Lee, and Hussain 2013; Saaty 2012).

In the AHP, the respondents were asked to choose between various pairs of statements among the criteria applied. For defining pairwise comparison, Saaty (2012) suggested a nine-point scale as shown in Table 1. The questionnaire was designed based on seven identified factors for determining students' choice of higher education and at least three common indicators of each factor. For example, if a respondent identifies that the cost issue is moderately more important than institutional reputation, then the former is rated '3' and the latter as '1/3' in this comparison, and so on. To check the consistency, the Consistency Index (CI) is applied. Saaty (1990) defined consistency as follows:

$$CI = (I_{max} - n)/(n - 1), \quad (1)$$

where λ_{max} is the Maximum Eigenvalue of the matrix of the importance ratios and n is the number of factors. Then, the Consistency Ratio (CR) is used to assess whether or not a matrix is sufficiently consistent. This is the ratio of the CI to the Random Index (RI), which is the CI of a matrix of comparisons randomly generated:

$$CR = CI/RI \quad (2)$$

Random pairwise comparisons have been simulated to produce average random indices for different sized matrices. The values of RI are given in Table 2 (Saaty 1990). According to Saaty (1990), if the value of CR is smaller or equal to 0.10, the inconsistency is acceptable.

Table 1. 1 to 9 Scale for AHP preferences.

Intensity of importance	Definition	Explanation
1	Equal importance	Two criteria contribute equally to the objective
3	Moderate importance	Judgement slightly favours one over another
5	Strong importance	Judgement strongly favours one over another
7	Very strong importance	A criterion is strongly favoured and its dominance is demonstrated in practice
9	Absolute importance	Importance of one over another affirmed on the highest possible order
2,4,6,8	Intermediate values	Used to represent compromise between the priorities listed above

Table 2. Random index.

N	1	2	3	4	5	6	7	8	9	10
RI	0.00	0.00	0.58	0.90	1.12	1.24	1.32	1.41	1.45	1.48

Where n is the number of factors

Results

Table 3 presents the geometric means of pairwise comparison for the seven main criteria. The next step is to define the relative priorities of the criteria (the final column of Table 5) by computing 'Priority Vectors'. Saaty (1990) introduced a 'Consistency Principle' for calculating priority vectors. Consistency principle says that $a_{ik} = a_{ij} \cdot a_{jk}$ and subsequent arguments for using the special case of the consistency matrix formed by elements $a_{ik} = w_i/w_j$, where w_i and w_j are the elements of the priority weight vector corresponding to criteria i and j .

Table 3 reveals that the learning environment is considered as the most important issue influencing the international students' decision-making process of selecting the UAE as their study destination with a priority weight of 37% followed by the cost issue, which had a competitive priority of 23%. Institutional reputation and personal development were ranked third and fourth, respectively, with recommendation, socio-cultural proximity and government initiatives being considered as the three least important factors by the consensus feedback of the respondents. The priority vector column in the table reveals that together with learning environment, cost issues and institutional reputation constitute more than 75% importance while making the decision for higher education in the UAE. It is pertinent to note here that the consensus responses in Table 5 fulfil the acceptable CR requirement. To gain a better understanding of the priorities reported in Table 3, a pairwise comparison of the sub-criteria within each criteria is also undertaken based on the consensus responses of the respondents (Tables 4–10). Table 4 gives the priority listing of the consensus pairwise comparison for the three learning environment sub-criteria. The biggest concern is the comfortable climate (40%), followed by conducive to learning (22%) and safe environment (15%).

Similarly, within the cost issues (Table 5), the living cost is considered very important with a priority score of 45%, followed by the tuition fees (23%). Both of these cost parameters constitute almost 65% of the weight when deciding on a university on the basis of the cost criteria.

Tables 6–10 present geometric means and priority vectors of the remaining four criteria and associated sub-criteria. The CR values clearly show that all the results are consistent.

Findings and discussion

The results of this study suggest that the decision to study abroad is a complex process that is influenced by personal and situational factors, as well as the institutional and programme characteristics. The key findings of the AHP analysis may be summarised as follows: First, the findings of this study revealed that not all factors are viewed with equal importance in influencing the students' decision to study abroad, as reported by previous studies (Cubillo, Sanchez, and Cervino 2006; Eder 2010; Mazzarol and Soutar 2002; Rudd, Djafarova, and Waring 2012). In this study, the top three

Table 3. Geometric means of pairwise comparison of main criteria.

Learning Environment	Cost Issues	Institutional Reputation	Personal Development	Recommendation	Sociocultural proximity	Government Initiatives	Priority Vector
1	6.40	5.80	5.80	6.00	6.60	5.60	0.37
Environment	0.16	6.60	6.00	6.00	5.60	6.40	0.23
Cost Issues	0.17	1.00	5.80	6.20	6.60	6.20	0.16
Institutional Reputation	0.17	0.17	1.00	6.00	5.60	6.60	0.11
Personal Development	0.17	0.16	0.17	1.00	5.00	5.40	0.07
Recommendation	0.15	0.15	0.18	0.18	1.00	5.60	0.04
Sociocultural proximity	0.19	0.16	0.15	0.19	0.18	1.00	0.02
Government Initiatives							

CR=0.07 < 0.10 (acceptable)

Table 4. Geometric means of pairwise comparison of learning environment.

Comfortable Climate	Conducive to Learning	Safe Environment	Multicultural Environment	English Speaking	Econ & Political Stability	Priority Vector
1.00	5.40	6.20	5.80	4.20	4.60	0.40
0.19	1.00	5.80	5.40	4.00	5.00	0.22
Learning Environment	0.16	1.00	5.40	4.60	5.40	0.15
Safe Environment	0.17	0.19	1.00	5.60	6.00	0.11
Multicultural Environment	0.24	0.22	0.18	1.00	5.60	0.07
English Speaking	0.22	0.19	0.17	0.17	1.00	0.03
Econ & Political Stability						

(λmax = 8.89, CI = 7.69, RI = 1.12, CR = 0.06 < 0.1 OK.)

Table 5. Geometric means of pairwise comparison of cost issues.

	Living Cost	Tuition Fees	Travelling Cost	Visa Time	Degree Duration	Part-time Work	Priority Vector
Living Cost	1.00	6.2	6.8	6.4	6.8	6.4	0.45
Tuition Fees	0.16	1.00	6.00	4.80	6.00	6.40	0.23
Travelling Cost	0.15	0.17	1.00	5.80	5.20	6.00	0.15
Visa Time	0.16	0.21	0.17	1.00	3.60	4.40	0.08
Degree Duration	0.15	0.17	0.19	0.28	1.00	7.80	0.07
Part-time Work	0.16	0.16	0.17	0.23	0.13	1.00	0.03

($\lambda_{\max} = 8.70$, $CI = 7.50$, $RI = 1.24$, $CR = 0.06 < 0.1$ OK.)

ranking factors that have contributed to the international students' decision to study in the UAE are learning environment, cost issue and institutional reputation. Studying in the UAE is becoming an increasingly attractive option for international students not only from the Arab region, but also from other parts of the world. The country is known to be a safe, hospitable and peaceful place for study, and accommodates a diverse and multicultural student population from different countries. This indicates that the personal preferences of international students are aligned with the unique features and social philosophy that the UAE has to offer. In addition, the economic and political stability of the country, together with the rapid growth of Dubai and Abu Dhabi, means that there are ample career opportunities upon graduation. Students choosing to study in the UAE can choose from a variety of fields through which to begin their careers, which makes the UAE an appealing destination for education within the Arab region. Second, the cost issues in the UAE represent another important factor in determining the motivation and decision of the international students to travel to the UAE for tertiary education. The high importance on this item was surprising as the UAE is considered to be one of the countries with a higher cost of living and university fees. However, comparatively, the cost of studying in the UAE can be significantly less or much lower than studying in Western countries, such as in the United Kingdom, Canada, Australia and the USA (Sadaqat 2014). These results are consistent with the findings of Wilkins, Balakrishnan, and Huisman (2012) who found that international students seek to study at international branch campuses located in the UAE due to the lower educational cost compared to that in their home campuses. It is worth noting that the tuition fees do not necessarily discourage prospective international students as long as the quality of education provided is high (OECD 2014).

Third, institutional reputation is judged to be an important factor for selection by international students in their decision-making process for selecting UAE as the destination choice. The respondents rated three factors they consider important – quality of education, university reputation and recognition of the degree as the primary criteria for their decision-making. This corresponds with the findings of Rudd, Djafarova, and Waring (2012) and Cubillo, Sanchez, and Cervino (2006), which indicated that students would have a stronger motivation to study abroad if the chosen institution offers a high-quality tertiary education and its academic qualifications enjoy widespread international recognition and prestige, as this is a lifetime investment opportunity. Many

Table 6. Geometric means of pairwise comparison of institutional reputation.

	Quality of education	University reputation	Degree recognition	Courses diversity	Easy admission	Facilities of institutions	Institution's Ranking	Scholarships	Employment prospects	Priority Vector
Quality of education	1.00	6.40	6.00	6.20	6.20	6.20	6.8	5.4	5.80	0.31
University reputation	0.16	1.00	6.40	6.20	5.60	5.80	6.4	5.6	5.40	0.20
Degree recognition	0.17	0.16	1.00	6.80	6.20	6.00	7.6	6.4	6.80	0.16
Courses diversity	0.16	0.16	0.15	1.00	5.00	5.00	5	4.6	4.00	0.10
Easy admission	0.16	0.18	0.16	0.20	1.00	4.80	5	4.6	4.40	0.07
Facilities of institutions	0.16	0.17	0.17	0.20	0.21	1.00	6.4	4.8	4.80	0.06
Institution's Ranking	0.15	0.16	0.13	0.20	0.20	0.16	1	5.6	6.00	0.05
Scholarships	0.19	0.18	0.16	0.22	0.22	0.21	0.17	1	5.00	0.03
Employment prospects	0.17	0.19	0.15	0.25	0.23	0.21	0.17	0.20	1.00	0.02

(λ_{\max} = 14.26, CI = 13.13, RI = 1.45, CR = 0.09 < 0.1 OK.)

Table 7. Geometric means of pairwise comparison of personal development.

	Family	Friend's	Teacher's	Agent's	Alumni	Media	Priority Vector
Family	1.00	6.20	5.20	6.80	5.80	6.40	0.42
Friend's	0.16	1.00	4.60	6.20	6.00	6.00	0.25
Teacher's	0.19	0.22	1.00	7.00	7.00	7.00	0.18
Agent's	0.15	0.16	0.14	1.00	5.60	6.20	0.11
Alumni	0.17	0.17	0.14	0.18	1.00	7.00	0.07
Media	0.16	0.17	0.14	0.16	0.16	1.00	0.03
Family	1.00	6.20	5.20	6.80	5.80	6.40	0.42

($\lambda_{\max} = 6.28$, $CI = 5.08$, $RI = 1.12$, $CR = 0.04 < 0.1$ OK.)

Table 8. Geometric means of pairwise comparison of recommendation.

	Family	Friend's	Teacher's	Agent's	Alumni	Media	Priority Vector
Family	1.00	6.20	5.20	6.80	5.80	6.40	0.42
Friend's	0.16	1.00	4.60	6.20	6.00	6.00	0.25
Teacher's	0.19	0.22	1.00	7.00	7.00	7.00	0.18
Agent's	0.15	0.16	0.14	1.00	5.60	6.20	0.11
Alumni	0.17	0.17	0.14	0.18	1.00	7.00	0.07
Media	0.16	0.17	0.14	0.16	0.16	1.00	0.03
Family	1.00	6.20	5.20	6.80	5.80	6.40	0.42

($\lambda_{\max} = 9.99$, $CI = 8.99$, $RI = 1.24$, $CR = 0.07 < 0.1$ OK.)

Table 9. Geometric means of pairwise comparison of sociocultural proximity.

	Religious homogeneity	Close to home country	Friends/relatives live here	Halal food	Cultural homogeneity	Priority Vector
Religious homogeneity	1.00	4.80	3.20	5.00	4.80	0.42
Close to home country	0.21	1.00	5.40	4.60	5.80	0.27
Friends/relatives live here	0.31	0.19	1.00	5.00	5.00	0.17
Halal food	0.20	0.22	0.20	1.00	5.60	0.09
Cultural homogeneity	0.21	0.17	0.20	0.18	1.00	0.04

($\lambda_{\max} = 5.65$, $CI = 5.40$, $RI = 1.12$, $CR = 0.04 < 0.1$ OK.)

Table 10. Geometric means of pairwise comparison of government initiatives.

	Scholarships	Government Relations	Institutional Collaboration	Priority Vector
Scholarships	1.00	5.40	5.20	0.66
Government relations	0.19	1.00	5.40	0.35
Institutional Collaboration	0.19	0.19	1.00	0.15

($\lambda_{\max} = 5.01$, $CI = 3.51$, $RI = 0.58$, $CR = 0.06 < 0.1$ OK.)

higher education institutions in the UAE have been encouraged to seek international accreditation from specialised accreditation bodies, such as the Accreditation Board for Engineering and Technology (ABET), the Association to Advance Collegiate Schools of Business (AACSB), European Quality Improvement System (EQUIS) and other regulatory bodies to ensure international quality higher education programmes. This accreditation is important as this may give the degree added credibility when it comes to applying for jobs when the students return to their home country. As noted by Urgel (2007), the accreditation provides a seal or label that differentiates the institutions from its peers at the national or international level. This differentiation, if adequate, propels the institution to gain widespread recognition and to earn greater appreciation of its brand name. International students would be attracted to study in a host country in which the education standards are high and the qualification is recognised in their home country, which, in turn, would provide longer term social and economic benefits (Ahmad 2015).

Finally, recommendation from others, social-cultural proximity and government initiatives are among the least important concerns for international students to travel to the UAE for higher education. This finding is in contrast with previous studies, in that the encouragement of parents and family members (Bodycott 2009; Fang and Wang 2014; Pimpa 2005; Rudd, Djafarova, and Waring 2012), social-cultural proximity (Bodycott 2009; Singh, Schapper, and Jack 2014) and government initiatives (Lane-Toomey and Lane 2013) were identified as being the common reasons influencing international students to study abroad. It might be because the decision to study abroad for higher education can be made by more mature and experienced students who have a greater say in the decision-making process (Hackney, Boggs, and Borozan 2012).

Conclusion and implications

The UAE has launched a strategic education plan to position itself as a hub of education in the Middle-East region (Knight 2013). One of its aims is to attract international students from around the world, generally, and from the Arab region, in particular, to study in the UAE. This study focuses on the determinants of the decision-making process to study abroad and offers some useful insights into the factors that influence the choice of international students to undertake tertiary education in the UAE over a more common destination. This research has provided understanding into a previously unstudied population and has set the stage for research concerning the motivation to study abroad in an increasingly important region of the world.

The findings of this study have provided theoretical and practical implications in an area that has been neglected, as the current research focuses on the flow of international students to Western or English-speaking countries. From the theoretical perspective, first, using the push–pull model of international students' destination choice as the theoretical framework, this study supplements the existing literature on the field of international education by highlighting the factors determining the decision-making process of international students in selecting higher education and destination choices in a limited and uncovered area, the UAE context. Second, the scholarly bias towards a Western and English-speaking setting in the study on the flow of international students overlooks the experiences of international students in an emerging education hub in the Middle-East region. To redress this imbalance, this study contributes to the body of knowledge by focusing on a country-specific research of a group of

international students currently enrolled in higher education institutions in the UAE. Sharing the UAE experience and the lessons learned from this study may assist other emerging education hubs, particularly in developing countries to strategise their educational policies in attracting international students as there is an increase in the flow of students shifting their higher education from developed countries to developing countries. A new educational hub, such as in the Asia Pacific region, has been seen as a major recipient of this new trend. Third, previous studies have focused on the level of satisfaction of the learning experience of students studying in the UAE (Ahmad 2015; Wilkins, Balakrishnan, and Huisman 2012). To the authors' knowledge, with the exception of only one study by Lane-Toomy and Lane (2013), little empirical research has specifically focused on the international students' destination choice to the UAE. This paper is the first published study to investigate the factors why students choose to undertake their higher education at a higher institution in the UAE. The relative importance of the decision factors when making the decision to study in the UAE has been identified. This study can deepen and complement previous studies in the area of transnational higher education, which will enable the development of the student decision-making theory and provide much needed information for planning a strategy.

The findings of this study have significant practical implications: First, to attract international students, the higher educational authorities and institutions should understand the decision-making processes, needs and preferences of the international students travelling to the UAE for higher education. Higher education authorities and institutions cannot simply extend the practices designed from other countries for recruiting and admitting international students to this unique and emerging segment of international students in the context of the UAE. Second, understanding the choice factors of international students enables higher educational authorities and institutions in the UAE to effectively position themselves in the market, thereby increasing the attractiveness of the higher educational system. Third, given that the cost of living in the UAE is higher than that of many other developing nations, the government could launch various kinds of scholarship or other related financial support initiatives to international students who are planning to study in the UAE for higher education. Finally, student recruitment strategies should be customised in response to the priority concerns of international students. For example, as the findings of this study have identified learning environment, cost issue and institutional reputation as the perceived top three criteria for the decision of international students to study in the UAE, the recruitment strategies should include extensive promotional and aggressive marketing strategies to highlight these components.

Limitations and prospects for future research

This research is not without its limitations. First, the current data were collected from the international students in two private higher learning institutions in the UAE. Increasing the span of the respondents from other different higher learning institutions that host a significant number of international students may provide a clearer picture concerning the issue being explored in this study. Second, this study collected data from international students across different regions. Most of the higher learning institutions in the UAE have standardised admission/marketing policies for the international students from the different regions in the world. Clustering the students into different regions (Asia, Europe, Africa and America) and prioritising the factors determining the choices of the students from each region will better help the policy-makers and

higher learning institutions to identify the needs and choices of these students. The findings will guide the policy-makers and institutions of higher learning to differentiate their admission, scholarship and marketing policies accordingly. Another possible dimension for the extension of this study is to prioritise the choices of international students using the criteria of different academic/degree programmes.

Disclosure statement

No potential conflict of interest was reported by the authors.

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