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International students choice criteria for selection of higher learning in Malaysian private universities

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This study evaluates and extends research on the choice criteria that influence international students' choice of Malaysian tertiary education providers. Based on an extensive review of both the education services and international marketing, a series of in-depth interviews generated many of the choice criteria. These were tested on a sample of international students from a few private universities on their views and reasons they chose Malaysia as their education destination. A total of 656 questionnaires were analyzed using factor analysis and analysis of variance. Results indicate that Malaysian tertiary education providers meet market requirements and promote these together with various choice criteria to attract more international students to study in Malaysia.

Key words: International students, higher education, selection, choice criteria, Malaysia.

INTRODUCTION

Higher education institutions (HEIs) are widespread and well-established as a global phenomenon, especially in major English-speaking nations such as the US, UK, Australia, Canada and New Zealand (Hemsley-Brown and Oplatka, 2006). In recent years, the tertiary education industry in most countries has experienced a number of significant changes. In the US for example, HEIs are undergoing substantial change in terms of the way colleges and universities are organized and function because of factors such as demographics, globalization, economic restructuring and information technology. These changes have led US HEIs to adopt new conceptions of educational market and organizational structures. As the competition intensifies, HEIs are increasingly adopting more business strategies and also behaving more like business entities through the acceleration of international linkages, brand campuses, single purpose programs and other forms of transnational education and quality of education for the customers.

However, the task of accomplishing all these activities in order to remain competitive to customers is not easy in the current global environment. Other variables such as government intervention, differences in international laws, custom procedures, languages, foreign exchange, costs, behaviors, perceptions, and life styles are challenges for higher learning institutions in striving to provide quality and sustainable education programs. Paramewaran and Glowacka (1995) in their study of university image found that HEIs need to maintain or develop a distinct image in order to create a competitive advantage in an increasingly competitive market. In a number of countries, governments have continuously stressed on the economic benefits resulting from higher education (Yorke, 1999).

As the value of the education market is worth hundreds of billions of dollars in today's market, this has resulted in the announcement of a new joint-venture every week by traditional or new players all over the world, as they compete to be in the forefront of this increasingly global market. According to Boehm et al. (2002), the forecast for the year 2025 will see more than 7 million students studying overseas.

In the Malaysian context, the Malaysian government had in the 1980's recognized that it would be unable to educate more than 6% of its population through its own institutions and thus began to partner with international institutions to supplement its system of higher education

(Lenn, 2000). Traditionally, for the last 50 years, many Malaysians were sent to host countries especially English speaking nations to study at chosen HEIs. However in recent years, the government has invited foreign universities to operate in Malaysia. With this move, the government has made another important decision; to turn Malaysia into an educational hub in the region. Both public and private HEIs now have to take greater ownership and responsibilities for the overall products and services that they offer their customers. This has seen many HEIs seriously adopting some form of business strategies, in particular marketing strategies, for strategic activities in their operations.

In the higher education industry, students can become potential campus customers. Under the globalization concept, students know that in order to be successful, they must develop some key global skills and one of them is attaining international higher education qualification. However, there is little agreement, in the literature, on the identity of the '*higher education customers*'. As the concept of *customers* is not clearly defined, it makes it difficult for higher learning institutions to manage their strategic activities from the marketing point of view (Navarro, Iglesias and Torres, 2005). Thus, it has been suggested that the '*stakeholder concept*' be used in educational analysis (Schmidt, 2002: p.37) rather than '*customers*' which is more popularly used in business analysis. Eagle and Brennan (2007, on the other hand, suggested a "middle way" concept for the benefit of both educational policy-makers and managers. While this is not the focus of the paper, there is, however, a need to have some understanding of the perspective of how HEIs view potential students as it would have a bearing on the marketing strategies that they would adopt in order to capture the international student market.

This study focused on the selection of higher learning institutions by international students. As education and education marketing is a service industry which presents a particular set of challenges for practitioners (Ross, Heaney and Cooper, 2007) where the main focus is the students-cum-customers. Selecting a higher learning institution is the first step undertaken by international students in the educational process of higher education. Selecting a higher learning institution is a significant decision that may shape not only the life and success of the students' careers but also their families. In the choice criteria review in the international contexts, the student-cum-customer must decide which higher learning institute to attend while taking into consideration influence from the mass media, parents, peers, location, cost, host country and other variables. These phenomena have encouraged HEIs to place greater emphasis on student recruitment. Due to the importance associated with the choice criteria and how it influences potential student's decision-making process, various initiatives have been started. In Malaysia recently, international students are considered as a new group of students who go to higher

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learning institutions in order to enroll in higher education studies outside their own country. Thus, a considerable segment of customers of higher learning institutions are currently demanding a kind of education that may be different from the local Malaysian students.

In the new environment, HEIs especially private HEIs must identify these "new" customers, determine and work towards meeting their needs. This strategy is considered important not only for the survival of private HEIs but also to achieve student satisfaction and loyalty towards the HEIs in this competitive environment. All HEIs in Malaysia realize that international student recruitment is of paramount importance as a means of generating income. This paper aims to focus on identification of choice criteria international students consider important when choosing an educational institution.

LITERATURE REVIEW

An overview of the Malaysian higher education sector

Higher education is of extreme importance in supporting the national economic objectives of every country in the world and in developing the indigenous labour forces, including the direct raising of extra-national income (Yorke, 1999). In the US, education is the second largest export market after agriculture and the second largest domestic industry after health care (Abeless, 2001). According to Pimpa (2003), it has been estimated that more than 1.6 million students study outside of their home countries and the number is continuously increasing. Currently, the US is the leader in the market for international education, followed by UK and Australia (Binsardi and Ekwulugo, 2003). According to Brown and Mazzarol (2009), during 1990s Australia become as one of the top five suppliers of education services in the world. In terms of investment, countries such as EU, Australia, Canada, the USA and Korea invest 1.1, 1.5, 2.5, and 2.7% of their GDP respectively on higher education (Cornuel, 2007). In Malaysia, besides the government-funded HEIs, there are a number of HEIs which are subsidiaries of major conglomerates and some of these HEIs are listed in the Kuala Lumpur Stock Exchange (KLSE has now been renamed as Bursa Kuala Lumpur), as their roles are understandably entrepreneurial in nature. The government of Malaysia plays a major role and acts as a mediator to Private HEIs. However, according to Mazzarol et al. (2003), the major obstacle to the expansion of brand campuses in Malaysia is

likely to be the potential squabbling or rivalry between various influential stakeholders seeking to encourage the development of their own alliance partners. Meanwhile, a majority of these private HEIs will need a substantial period of time to fully develop and become financially able.

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Table 1. List of private universities, college universities and foreign brand universities in Malaysia.

Name	Country (year of establishment)
International Medical University	Malaysia (1999)
International University College of Technology Twintech	Malaysia (2003)
University College of Technology and Management Malaysia	Malaysia (2001)
Kuala Lumpur Infrastructure University College	Malaysia (2003)
Limkokwing University College of Creative Technology	Malaysia (2003)
Multimedia University	Malaysia (1999)
Kuala Lumpur University	Malaysia (2001)
University of Technology Petronas	Malaysia (1999)
Universiti Tenaga Nasional	Malaysia (1999)
Universiti Tun Razak	Malaysia (1999)
University College Sedaya International	Malaysia (2003)
University Tunku Abdul Rahman	Malaysia (2001)
Selangor Industry University	Malaysia (2000)
Malaysia Open University	Malaysia (2000)
Malaysia Science and Technology University	Malaysia (2000)
Asia Institute of Medical, Science and Technology	Malaysia (2001)
Monash University	Australia (1998)
Curtin University of Technology	Australia (1999)
University of Nottingham	United Kingdom (2000)
FTMS-De Monfort University	United Kingdom (1999)

According to Tan (2002), there are four national goals that need to be met in the restructuring of private HEIs:

1. to produce the necessary human resources for the country
2. to export higher education
3. to stem the flow of higher education students offshore in order to reduce the outflow of Malaysian currency
4. to enroll 40% of student-age cohort in higher education by the year 2020 in order to realize the aim to make Malaysia a developed, industrialized country.

By the mid-1990s, there were two major types of private HEIs in Malaysia, the single- discipline colleges and the comprehensive course-delivery colleges. The majority of the private HEIs were developing into the latter category, engaging comprehensive course-delivery (Noran and Ahmad, 1997). Most private HEIs in Malaysia are located in the Klang Valley in the state of Selangor which is one of the developed states in Peninsular Malaysia. To date, there are 16 private universities and college universities and four brand campuses of reputable foreign universities from Australia and the United Kingdom. Table 1 shows the list of private universities, college universities and foreign brand universities in Malaysia.

The policy of liberalization and democratization of education introduced by the Malaysian government through the Higher Education Act has resulted in an increase in the number of international students in Malaysia since 1996. The number of international student enrolment in Malaysia has increased rapidly from 32 in 1970 to 126 005 in 1999 (Mohamad, Zahiruddin and Mohd, 2003). In the year 2004 alone, there were about 39, 763 international students enrolled in Malaysian private HEIs (Habhajan, 2004). Our research (Table 2) indicates the number of international student enrolment in Malaysia from 1996 to 2007.

Important factors for evaluation and selection of a university

Why do international students feel attracted to study in Malaysia? Currently, a majority of overseas study decision making is based on research done outside Malaysia. According to Maringe and Carter (2007) most of the studies

suggested student overseas decision making is modeled by a combination of pull-push factors. Mazzarol and Soutar (2002) reiterated that there are many factors influencing students to choose international education, such as lack of access to higher education especially in Asia and Africa, a commonality of languages and availability of technology-based programs. In another study Mazzarol and Soutar (2008) found that the reputation of the supplier country and its educational institutions are major factors influencing the selection of a study destination. For countries such as Australia, France, the UK and the US, quality management in education is a major focus of attention (Baldwin, 1991; Marceau, 1993; Harman, 1994; Lindsay, 1994 and Edmond, 1995). On the other hand, Mazzarol and Hosie (1996) found that

Table 2. International student enrolment in Malaysia, 1999-2005.

Year	Number
1996	12,072
1997	12,170
1998	13,356
1999	12,605
2000	n.a
2001	13,472
2002	28,022
2003	31,288
2004	39,763
2005	40,525
2006	44,390
2007	47,928
2008	52,000*
2009	65,000*

Source: Ministry of Higher Education, Malaysia (2008) and Habhajan (2004), p.5.

*Estimated from Edslr (2008). n.a; not available.

many of the students studying in Australia had been recruited by an education agent while friends were the most commonly cited source of information about HEIs. While in Malaysia, the quality management system philosophy is applied in order to encourage students to pursue studies within the country (Sohail, Rajadurai and Nor, 2003). The findings from these studies have important implications for strategic international student marketing, recruitment and retention and are used as a basis for this study.

As competition in the education industry increases, many HEIs are increasingly viewing students as consumers. Thus, HEIs are forced to equip themselves with the necessary marketing intelligence and information that would enable them to face the challenge, especially in the international markets. As for students, they have a "membership" relationship with the education service (Lovelock, 1983). They consider themselves to be the main decision-makers. In other words, international students demand better value for their money and are more selective in choosing an educational institution. Therefore, criteria of the choices of study destinations have been widely researched and researchers have come out with different results. The main work regarding choices of criteria within the HEIs' environment shows the multi-dimensional nature of this concept. According to Houston (2008: 62), interested parties see the university from three perspectives: economic (employers and industries), societal (families of existing and potential students, community organizations) and educational (academic disciplines, other education providers). A significant number of studies are available especially in the context of home students and international students in the most developed world. The variety of variables found in the review also creates difficulties when attempting to develop an ideal concept for this study.

From the review, among the potential determinant dimensions of choices of criteria are aspects such as *accommodation, library, laboratory, cafeterias, student union building*. These aspects could be encompassed with *facilities or infrastructure dimensions*. Academic staff elements such as *teaching quality, staff qualification, teaching quality, medium of instruction, reputation, and image* appear as potential dimensions in teaching and learning quality. HEIs with large faculty and facilities may attract more students (Tang, Tang and Tang, 2004). *Cost factor* is also highlighted, which would include *tuition fees, cost of living, price of services*, etc. As the tuition fee increases, enrollment rates tend to fall (Leisie and Brinkman, 1987). The four grouping refers to the environmental surrounding of the students such as *campus life, safety, campus design, social life and people surrounding the HEI compounds*. Support services such as medical facilities, international schools, part-time jobs, kinder-gartens, banks, counseling, financial support, and

career guidance were also highlighted by the researchers. A decision-making process by the potential student is often influenced by “significant others” such as friends, parents, counselors, other students, teachers and university admission officers, internet, mass media and sometimes the league tables. Employers, parents and stakeholders in general are now far more aware of instructional ratings (Veloutsou, Paton and Lewis, 2005). A majority of these dimensions, which are normally controlled by the HEIs, could be considered as important choice criteria by inter-national students. On the other hand, a systematic review of literature was done by Hemsley-Brown and Oplatka (2006) on higher education marketing and they divided
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research in this area into 11, such as marketing communication, image and reputation, application of marketing models, transactional marketing, relationship marketing, strategic approaches in marketing, extending participation in HEIs, strategic tools of marketing, market segmentation, market positioning, and market planning.

These factors are an important framework for understanding the influences that motivate a international student's selection of a education provided by destination country and will use as a framework and questionnaire design for the present study.

However, *gender* and *age* are the two most studied areas of demographic factors bearing on the international students' adaptation (Sam, 2000). The current international students have been raised with the ideal of gender equality not only in the public arenas of education and employment but also in their homes by their parents. In a study about student satisfaction in HEIs, Aldemir and Gulcan (2004) found that a great majority of female students expressed satisfaction with the faculty in comparison to male students. Similarly, it has been found that female students use more intensively the information source to collect information about their future university studies (Veloutsou, et al., 2005). Joseph, Yakhou and Stone's (2005) study indicated, for example, that one of the overriding concerns of women is safety and they would place *campus safety* as a high priority in selecting the HEIs. Men, on the other hand, appear to place more importance on such items as *scheduling* and *sports*. However, Wang and Bu (2004) indicated that there was no significant gender difference in their beliefs regarding the relative advantages and disadvantages of domestic versus global careers. A study in Malaysia done by Sohail, Rajadural and Nor Azlin (2003) found that the award of ISO 9002 has been a reason for enrolling in the universities by an overwhelming number of female respondents.

A vast majority of studies on choice criteria have dealt with only one country samples, such as US (DeShields Jr. et al., 2005), Indonesia (Joseph and Joseph, 2000), New Zealand (Joseph and Joseph, 1998), Australia (Soutar and Turner, 2002), Taiwan (Chen and Zimitat, 2006), Malaysia (Rohaizat, 2004), Thailand (Pimpa, 2003), Spain (Navarro et al., 2005) and Turkey (Yamamoto, 2006). According to Joseph and Joseph (2000), there is very little cultural distance if samples from one country were used in the study. As pointed out by Cubillo, Sanchez and Cervino (2006) the growing number of international students in search of higher education out of their own country has increased the need for understanding the behavior of these students from a cross-national perspective. Only a few studies have used international students as their samples, such as Binsardi and Ekwulugo (2003), Mohamad Hanapi et al. (2003) and Mazzarol and Soutar (2002). McMahon (1992 in Mazzarol and Soutar, 2002) summarised that a positive correlation was found between the size of the host nation and the sending nation's economies. As earlier mentioned

the findings of this study can also be used as marketing intelligence input for the Malaysian Government and the HEIs in Malaysia as it is better to seek information on international students from the sending countries towards Malaysian education. Although very little has been written about Malaysian education in the international arena, the number of foreign students choosing Malaysia as their education destination continues to rise annually. Thus, this research is imperative as the findings are useful to further spur the growth of Malaysia as an education destination for international students.

METHODOLOGY

The study reported in this article was part of a study of the choice criteria for international students enrolled in private higher learning institutions in Malaysia before September 2007. This study was conducted over a period of four months at various locations namely Kuala Lumpur, Shah Alam, Ipoh, Cyberjaya and Melaka. Although this study is not the pioneer study in Malaysia, it relies on methodologies that are highly and consistently accepted in many researches in other countries. Initially, selected HEIs were sourced from the database provided by the Ministry of Higher Education in Malaysia. However, due to limited access to all private higher learning institutions and lack of cooperation from them, the sampling procedure was changed to non-probability sampling where a combination of judgment and preference sampling was used with the help of the associations representing Malaysia's HEIs such as NAPIEI (National Association of Private and Independent Educational Institutions) and PKIBM (National Association of Indigenous Private Educational Institutions). The samples of this study involved a number of international students from various countries studying in Malaysian private higher educational institutions. Complete sets of

questionnaires were distributed to selected samples of six Malaysian Private Higher Educational Institutions. The institutions were chosen based on the number of international student enrolment. However, only 656 foreign students responded to the questionnaires, which had been sent to six private higher learning institutions. This number was considered satisfactory for statistical analysis and was representative of the population strata. In addition to information in the questionnaires, numerous opinions, personal experiences, views and recommendations with regard to the future development of private higher institutions and government policies were also received from these international students.

The instrument used in this research was questionnaire. The preliminary step in designing the instrument involved a series of focus groups comprising educational providers and international students attending colleges and universities in Malaysia who were asked to assess the appropriateness of the choice criteria found in Malaysia. In addition, preliminary work data, focus group meetings, and instrument adopted from numerous studies such as Yamamoto (2006), Soutar and Turner (2002), Mazzarol and Soutar (2002), Joseph and Joseph (1998 and 2000), and Leblanc and Nguyen (1999) were also adopted. Three criteria were applied in developing the questionnaire - (1) test administration time of 10 to 15 minutes, (2) elimination of variables with apparent low predictive value (This is done by assess the nomological validity of the model through the use of factor analysis) and (3) a questionnaire easily understood by the students. After the pilot test, a final 48-variable item question-naire was used after successful to fulfils all the criteria mentioned above. The questionnaire was divided into two parts. In the first section respondents were required to rank the different dimensions

Table 3. Summary of means

The most important items	Mean	The least important items	Mean
1. Entry qualification	4.98	1. Education expo	4.20
2. English usage	4.94	2. Exchange rate	4.19
3. English language	4.94	3. Sports recreation	4.17
4. Specialized field	4.83	4. Internet	4.11
5. Academic staff	4.83	5. Friends	4.04
6. Clean facilities	4.81	6. Print media	4.00
7. Career advisor	4.81	7. Electronic media	3.99
8. Visa	4.72	8. Beautiful	3.81
9. Religion	4.71	9. Relatives	3.75
10. Internet facilities	4.68	10. Outskirts	2.93

on a scale of (1) Extremely not important; (2) Not very important; (3) Not important; (4) Important; (5) Very important; and (6) Extremely important. In the second part, respondents were asked about their demographic background such as country of origin, age, gender and types of studies.

RESULTS

Data obtained from the 656 questionnaires were analyzed using the SPSS statistical program. The analyzed sample comprised mainly males (65.5%). A majority of the samples (94%) comprised students below the age of 25 years. Students from South-East Asian countries made up the largest population of the sample (32%) and the least were from North America, Europe and Oceania (2%). With regard to their program enrollment, 376 of the respondents were enrolled in degree programs (56.4%) and only 6.4% of them were enrolled in post-graduate programs. The rest of the respondents were enrolled in pre-diploma and diploma level programs.

As explained in the methodology, the international students were asked to indicate their level of agreement or disagreement with statements regarding the variables mentioned in the questionnaires. Their responses are presented in Table 3 which shows the list of items from the most important to the least important. The summary of means shows that out of the 48 variables, the respondents regarded all items listed (refer Table 3) to be of great importance. A mean score was calculated for each aggregate score. Rankings were determined by means of summary statistics. Most of the items had a mean score range of 4 to 3 except for one item, *outskirts* with a mean of 2.93. It is indicated from the 10 most important items that *entry qualification*, *English usage* and *English language* were the most important criteria of choice whereas the item *outskirts* was the least important criteria of choice chosen by the international students. This study supported.

After determining the mean analysis, a factor analysis, a data reduction technique that can help determine a smaller number of underlying dimensions of a large set of inter-correlated variables (Absher and Crawford, 1996), was performed. Factor analysis was used to assess the nomological validity of the choice criteria, while discriminant validity of the choice criteria was examined through the rotated factors scores across all the identified factors (Joseph and Joseph, 2000).

Table 4 reveals the factor loadings identified by each of the samples of international students involved in this study. Factor analysis with varimax rotation was used to determine the underlying dimensions of 48 criteria of choices. This analytic technique is very common and found to be used in about one in six journal articles over a three-decade review

(Aron and Aron, 1994). According to Gilbert, et al. (2004: 376), although no one method of factor analysis is universally endorsed as the preferred one, different approaches are used based on particular situations. All factors with eigenvalues or latent roots of 1.0 or greater are considered significant and reported. Items were removed if factor loadings were less than of 0.40 (Hair et al., 1998). However, in this study, only items with factor loadings of 0.5 and above are taken (based on previous studies) and suggestions made by Nunnally (1978) and Gilbert et al. (2004) were followed. For the purpose of interpretation, each factor comprises variables which are loaded 0.50 or higher on the factor. Furthermore, alpha was used to identify the reliability of identified factors. The scale for reliabilities was determined by the non-standardized Cronbach alpha which is reported to be the preferred method (Morgan and Greigo, 1998) and is most widely used for reliability's scale (Aron and Aron, 1994).

The naming of a factor-loading matrix is a highly arbitrary decision of the researcher (Aron and Aron, 1994). In this study, the interpretation of the factor-loading matrix was straightforward. The seven factors were *quality learning environment*, *decision influencers*, *customer focus*, and *cost of education*, *facilities*, *location* and *socialization*. The first of these components explains that 36.7% of the variance reflects quality of the program. The second explains about 7% of the variance and includes aspects related to word of mouth. The words

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Table 4. Factor analysis of international students' choice of criteria of study destination.

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
1. Quality learning environment							
Qualification	0.692						
Staff	0.691						
English usage	0.684						
University reputation	0.657						
Courses offered	0.624						
Course duration	0.618						
Specialized field	0.611						
Visa	0.610						
Political stability	0.601						
Entry requirement	0.560						
G2G collaboration	0.555						
2. Decision influencer							
Relatives		0.721					
Print media		0.709					
Electronic media		0.708					
Education expo		0.681					
Internet		0.679					
Friends		0.660					
Education agent		0.620					
Parents		0.598					
Responsiveness of university		0.505					
3. Customer focus							
Regulations			0.659				
Community acceptance			0.643				
Culture			0.620				
Campus life			0.615				
Religion			0.590				
Career advisor			0.587				
International students' advisor			0.539				
English language			0.525				
4. Cost of education							
Cost				0.716			
Funding				0.844			
Exchange rate				0.565			
Accommodation				0.538			
5. Facility							
Design/layout					0.730		

Clean							0.630
Sports recreation							0.516
Internet facilities							0.512
6. Socialization							
Urban area							0.652
Part-time jobs							0.510
7. Location							
Outskirts							0.625
Beautiful							0.556
Eigenvalue	17.637	3.021	2.118	1.315	1.239	1.115	1.083
Cumulative of variance explained	36.744	43.037	47.450	50.190	52.771	55.093	57.093
Cronbach's alpha	0.9132	0.9014	0.8696	0.7350	0.7805	0.5204	0.3006

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Table 5. Importance of dimensions.

Rank	Factor	Percentage (%)
1	Quality Learning environment	66
2	Decision Influencer	54
3	Customer focus	48
4	Cost of education	24
5	Facilities	24
6	Socialization	12
7	Location	12

mouth. The aspects pertaining to customer orientations are included in the third component. This component explains about 4% of the variance. The fourth component explains 3% and groups together the items related to cost of education such as tuition fee, accommodation fee, exchange rate and availability of funding. The fifth component, facilities, groups together items related to the internet/computer facilities, sports facilities, design of the building and campus and cleanliness and the environment, which explain 3% of the variance.

The last component, socialization, includes the location of the university at urban *area* and availability of part-time jobs. All seven factors explain 57% of the total variance. Thus, a model with seven factors may be adequate to represent the data because the results of the analysis can be considered satisfactory since they do not exceed 60% of the explained variance recommended in social sciences (Hair et al., 1998).

After determining the factor structure, a reliability test of the detected underlying scales was performed. The results showed reliabilities of between 0.91 and 0.52 for the six factors, which are considered sufficient (Nunnally, 1978) except for the last factor. The alpha coefficients for the factors show that the majority are highly reliable and acceptable, with alpha scores exceeding 0.5, the threshold recommended by Nunnally (1978) for exploratory research. The results for the factor analysis also show that the Kaiser-Meyer-Olkin (KMO) score was 0.756 and the Bartlett's Test of Sphericity value was significant (Chi square = 5675.15, $p < 0.05$). This KMO value shows that the sampling was adequate and therefore acceptable, and the distribution of value was adequate for conducting factor analysis. Determination of the relative importance of the belief-based variables in predicting intention to study in Malaysia was done by multiple regression analysis. Four out of seven factors was significantly associated with the satisfaction of students in Malaysia and shows in order of importance the factors that explain satisfaction, based on standardized beta coefficients. The model regression equation was:

Overall satisfaction = $0.01 \times 10^2 - 0.147$ Customer focus + 0.100 Cost of education + 0.124 Location – 0.108 Facilities
Where,

Multiple R = 0.47; Adjusted R = 0.41; F value = 7.879 and Standard error of the estimate = 2.139.

Besides analyzing the factor analysis of item, it is also important to rank the factors according to their importance as selected by the international students. The respondents were asked to rank the different dimensions in order of importance. The results of importance of dimensions could also be used to support and prove the factor analysis results. The factors have been ranked according to their percentage. The rank order as shown in Table 5 reveals that 66.4% of

the international students chose learning and political environment as the most important factor followed by choice of influence (54%), concern for students (48%), cost of education (24%), facilities (24%), location (12%) and general (12%). If we revised the factor analysis results, we could see that the results from both factor analysis and importance of dimensions were similar. It can be concluded, indirectly, that the results of importance of dimensions do indeed support the results of factor analysis.

As shown in Table 6, significant differences were noted between the responses between male and female respondents. Female respondents attached a higher perceived importance to six of the seven factors in Table 6. The comparison of means between male and female respondents does not reveal any significant differences except on two items: *decision influencers* and *facilities*. This shows that female respondents placed more importance on these items than their male counterparts. However, there is no clear explanation as to why female students evaluated the HEIs differently on these factors. These elements must be kept in mind by HEIs marketers to targeted potential students in those markets. This also show that the need to develop different strategies for different markets.

Furthermore, to evaluate the importance of the decision-making process on choice criteria, a multiple analysis of variance (MANOVA) technique was applied.

According to Sunita et al. (2006), the main advantage of this technique is that it protects against type 1 error and has the ability to reveal differences not shown in separate analysis of variance (ANOVA). On the other

Table 7. Differences in factors of choice criteria by region.

Factors	Africa	The rest of Asia	Middle East	Southeast Asia
Quality Learning environment	3.44**	3.26	3.40**	3.22
Decision influencers	3.03	2.81	3.21*	2.76
Customer focus	3.20**	3.12*	3.23**	3.22*
Cost of education	3.10	2.91	2.93	3.32*
Facilities	3.29*	3.21*	2.95	3.02
Socialization	3.20	3.05	3.21	3.33*
Location	3.32*	2.98	3.11	3.07
F	2.985	2.275	2.762	2.221
p-value	0.085	0.132	0.097	0.137

** Significant level at 0.01, * Significant level at 0.05.

hand, Malhotra (1999) states that MANOVA examines group differences across multiple dependent variables simultaneously. According to Tabachnick and Fidel (1996), this technique is also the able to accommodate the within subjects design of this research, something not provided for in discriminant analysis, a mathematically similar technique. Table 8 shows the results of the relationship of the seven factors and students from the sending nations (grouped by region) using the MANOVA test. The results indicate that students from African nations have a strong relationship with factors 1, 3, 5 and 7. Meanwhile factor 3 appears to be the most important factor for students from all nations. These results suggest two findings: first, different students from different nations have different needs and wants, and secondly, international students hope that they will be considered as customers because they pay a higher proportion of the overall cost of their studies as mentioned by Eagle and Brennan (2007).

DISCUSSION

In order to be able to meet their expectations, it is important to recognize the needs of the students. To achieve the nation's goal to become a regional education hub, higher educational institutions in particular private institutions must identify what are the choices of criteria most preferred by international students.

Therefore, these institutions must have the ability to market and promote the various choices of criteria in order to attract international students. This research highlighted several aspects relating to students' choice criteria of study destinations. Through this study the researchers have determined five items i.e. *qualification*, *English usage*, *English language specialized field* and *staff* were considered important by the international students. These findings are also consistent with the findings of other research such as factors influencing Taiwanese students' decision-making (Chen and Zimitat, 2006). In this study, perception that an overseas education is better than a local one is valid. The first factor found in this study is quality of learning environment was supported the perception above. A policy made by Malaysian government recently is to upgrading of the local supply-side of education at all levels. This trend will continue to give quality education for both local and international students.

The findings also highlighted differences between male and female preferences. Samples indicate that females placed more importance on information provided by people around them and on facilities provided by the HEIs than their male counterparts. This finding is supported by Joseph and Joseph (2000) where they also found that females place more importance in the information provided by the institutions. These elements must be kept in mind by those that address potential female students in the markets. Samples also indicate that students from different nations and regions see Malaysia in a different perspective in terms of providing education for their citizens. These findings are also consistent with the findings by Mazzarol and Soutar (2002) into the factors influencing host institution selection in Taiwan, India, China and Indonesia. The findings from these studies suggest Malaysian government and their education institutions need to consider the importance both pull and push factors that influence students' study destination choice. Thus, in developing strategies to attract international students, Malaysian private education institutions need to not only know but also understand the needs and wants of these students. Failure to address the needs of the international students will result in them losing a sustainable competitive advantage, in both the local and international markets.

By identifying the aspects of choice criteria, the HEIs could attract potential international students by providing the items mentioned above - through effective marketing strategies by internal or external marketing activities. It makes sense to adapt a marketing policy to suit the specific requirements and culture of prospective international students in these countries. As mentioned earlier, selecting a higher education institution to study or attend

is a momentous decision that may shape the life and success of a student's career and his/her family. According to Joseph and Joseph (1998), the items selected by the international students should be a concern of the HEIs for market positioning strategy and to strengthen their offerings in these areas. As mentioned in the findings, the items that are most related to pure services such as *quality education, cost, and facilities provided by the HEIs* are the key aspects that determine the decision-making process by the international students and will also determine their satisfaction and consequently will become the word-of-mouth elements for new potential students. These items are aspects directly under the control of the HEIs as empirically verified in this study. The ability of the HEIs to minimize dissatisfaction in order to increase retention rate of students is an important marketing strategy. This is because international students are facing stiff competition for admission to the best HEIs in their own nations. The high demand and limited places for undergraduate students in HEIs in their own countries have resulted in these students to look at studying in foreign countries and foreign HEIs as an alternative. Thus, students and their parents have to find the good fit between HEIs and the students to ensure the successful completion of their university degrees.

Conclusion

The findings from these multi-country and multi-area studies suggest Malaysia governments and all education institutions in Malaysia need to consider the importance of the factors found in this study. Recently, Malaysia has seen a significant upgrading of the local supply-side of education at all levels. Further more, the study has accomplished a basic task in that we are better informed as to which choice criteria students prefer and perceive to be reliable to consider. The ability of Malaysia and its higher learning institutions to continue to attract more international students will increasingly depend on the factors mentioned in this study. Quality of education is likely to remain the most important factor influencing study destination choice. This study was proof it and this is unsurprising because it was found to be main factor in other studies. This factor indicates that Malaysia need to invest in education to ensure quality is maintained. The task for higher learning institution is to ensure that quality claims can be substantiated. In spite of the importance of the results obtained, it is also important to highlight some of the limitations of the study, which further research should endeavor to remedy. The samples are limited to international students at selected private universities in Malaysia. This could limit the generalizability of the research findings. Further research could use a larger range of students from more diverse backgrounds. Consequently, in future studies, the choice criteria of selecting HEIs should be analyzed from the perspective of the various stakeholder groups such as parents,

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secondary school students, and employers who interact with the HEIs. In the writers' opinions, it would be necessary to corroborate and expand the results of this study with those of other studies to other elements that make up the current choice criteria offered by HEIs throughout the world. Another interesting area to look into would be a comparative analysis between purchase intention of prospective students at the particular regions and purchase decisions by the international students.

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