ANALYSING THE FACTORS AFFECTING INTERNATIONAL STUDENTS TO ADVANCE TO POSTGRADUATE STUDIES IN A HOST COUNTRY

Chuan-Chew Foo[1,2,+], Russayani bt Ismail[3], Yusnidah bt Ibrahim[4], Hock-Eam Lim[5] and Noor Sa'adah bt Sabudin[6]

[1] Universiti Tunku Abdul Rahman
[2,3,4,5,6] Universiti Utara Malaysia
[+]Corresponding author: foocc@utar.edu.my

Abstract

In business, the strategy of keeping your current customers to continue using your product is as fundamentally important as competing for new customers, and this strategy holds in most instances. With the internalisation of higher education and the consideration of higher education as tradable services, the focus on promoting education to attract more students from outside the country is accelerating and becoming more competitive. Similar to other services or products, retaining existing students to advance to a higher degree is equally important as searching for new students to enrol. Hence, this study investigates the factors that affect international students' choice to remain in Malaysia for their postgraduate study after the completion of their undergraduate programme. Using data gathered from one of the public universities in Malaysia, this study employed a logit model to identify the educational choice motives that influence the decision of the currently enrolled international students to remain in Malaysia for their postgraduate study. An in-depth interview was also conducted to have a close view of the perception of the participants. The finding indicates that the consumption and investment motive contributed only partly in explaining their choice to remain in Malaysia. In particular, this study suggests that a good study environment at the university is the most likely factor that influences the currently enrolled international students' decision to remain in Malaysia to further a degree, thus signifying the importance of consumption motives in determining their educational choice.

Keywords*. Higher education; international student; investment motive; consumption motive.*
JEL Codes*. I21; I23; I26.*

Introduction

Since the launching of the national higher education action plan (PSPTN) in 2007, many public universities, including Universiti Utara Malaysia (UUM), had taken the initiative to embark on the internationalisation agenda through heavy promotion of their academic programmes while strengthening the quality of education through accreditation at the national and international level. UUM is the sixth public university established by the Malaysian government in 1984. Along with the Malaysian government target, UUM aims to be an Eminent Management University and Research University in social sciences (Universiti Utara Malaysia, 2013a). In keeping with this vision, the mission of UUM is to be the centre of academic excellence in teaching and learning, research, consultancy, and publication in the field of management (Universiti Utara Malaysia, 2013b). The Malaysian public universities, including UUM, have subscribed to the internationalisation agenda by offering opportunities for students around the world to study at the undergraduate and postgraduate level. The willingness to engage in the internationalisation of higher education shows that UUM understands the benefits of having international students such as the enhancement of the institution in terms of knowledge, cultural exposure to the local students, as well as a way of generating income. By 2017, 2,637 international students had enrolled in UUM, a 6.76% increase in enrolment from the previous

year (Ministry of Education Malaysia, 2018). Moreover, in line with the intention of the Malaysian government to increase the financial independence of the public universities, enrolling international students in postgraduate study is one of the good options of the institutions to raise their income. Institutions are given flexibility in charging tuition fees on international students, especially at a postgraduate study level (Chapman & Chien, 2014).

In April 2015, the Malaysian government launched the Malaysia Education Blueprint (Higher Education) for the year 2015-2025. The blueprint is meant to enhance Malaysia higher education to spearhead Malaysia's goal towards achieving a high-income nation, which includes developing Malaysia as a sustainable global education hub capable of improving its brand as an international students' higher education destination. In line with this aspiration, the Malaysian government aims to achieve its target to attract around 250,000 international students to study in Malaysia by the year 2025 (Ministry of Education Malaysia, 2015). By and large, the education sector continues to be a vibrant sector; it is expected that this sector will contribute around RM33.6 billion by the year 2020 with the opportunity of creating 3.3 million jobs (Performance Management and Delivery Unit (PEMANDU), 2013). In-line with the Malaysian government's "brain gain" objective to move and retain the best international students for research, development, and commercialisation (RD&C) purpose (Abd Aziz Ismail & Doria Abdullah, 2014), the needs to strategically shift the direction of internationalisation policy from a students' hub to a talent hub is perhaps timely. Therefore, it is critical for host countries to rightly identify the major factors that influence the choice of students not only in terms of their higher education destination but also the ability to retain them for a postgraduate study. Against this backdrop, the paper analysed the factors that affect international students' decision to stay on to proceed to a higher level of studies in Malaysia after completing their current level of studies. Following the introduction in section one, section two will review the literature related to the study. Section three discusses the methodology, followed by a presentation of the findings in section four. The final section concludes the study.

Literature review
An individual may make an educational choice based on the pecuniary return gained after going through higher education or non-pecuniary return gained during or after completing higher education. From the economic viewpoint, investment motive is built on the premise of human capital theory (Becker, 1962; Schultz, 1961, 1962) in which an individual can expand his or her productive capacity by investing in a higher level of education. On the other hand, an individual may choose to invest in education even if it is not generating a higher monetary return or relatively high probability of employment (Oreopoulos & Salvanes 2014; Alstadsæter et al. 2008). In short, the satisfaction gained by an individual during and after investing in education, such as the joy of learning or the feeling of having the opportunity to involve in various activities on campus and beyond, or even the ability to uplift the social status, the chances of having better and healthier lifestyle, better family planning, stability in marriage and a higher level of well-being (Alstadsæter & Sievertsen, 2009; Frey & Stutzer, 2000, 2002; Oreopoulos & Salvanes, 2014) is the key factor that could also influence a student's decision to invest in education. Spence (1973) also indicated that education might serve as a signalling motive. His view is that education may be just serving as a screening device to signal the individual's productive ability to the employer. Thus, education may not enhance an individual's productivity but merely serve as an identification device to estimate the individual's productive capability (Albrecht & Ours, 2006).

According to previous empirical studies, the cost factor is the major concern of the international students to choose a higher education destination (Baharun et al., 2011; Lim et al., 2011;

Mpinganjira, 2011). The cost factor includes the tuition fees and cost of living. The assumption here is that, be it an investment or consumption motive, the monetary return would be the same in both cases; thus, the analysis will focus on the cost factor alone when it refers to the investment motive. Hence, the cost factor can be categorised under the investment motive. Based on the cost-benefit analysis, the proposed research framework suggests that the lower the cost and the higher the monetary return, i.e. a higher salary, the higher is the possibility that students will invest in education, or this case, choose to remain at a certain higher education destination. Rationally speaking, most individuals will choose a host country's higher education institution that has value for their money. When the cost of education in a particular host nation increases, the potential return from investment in higher education reduces. Therefore, the cost is expected to have a negative impact on the choice of higher education destination. As far as the indirect cost (forgone income) and the expected return after the completion of the study are concerned, both are treated as limitations in this research due to the difficulty in obtaining the information.

Besides, a consumption motive has a positive influence on the choice of higher education destination. As explained, individuals may enjoy a non-monetary return while or after the education process. Previous empirical studies have shown that a university's reputation factor, social factor, service factor, regulation factor, and the promotion factor carried out by the host nation could enhance the international students' utility. Therefore, if the host country and the institutions manage to provide the non- monetary return to the international students, then this will attract the currently enrolled international students to choose to continue to further their study there. Therefore, reputation, social, service, regulation and promotion factors are expected to have a positive impact on the choice of higher education destination (Bodycott 2009; Bouwel & Veugelers 2009; He & Banham 2011; Li & Bray 2007; Mpinganjira & Rugimbana 2009; Pereda et al., 2007; Perkins & Neumayer 2011a, 2011b).

Methodology
Targeted Population and Sampling Method
The targeted population of this research was final year international students currently studying in UUM. This study used primary data obtained through structured questionnaires. Thus, the targeted sample of this study was 184 students selected conveniently. The response rate was 91.8%.

Questionnaire and Methods of Analysis
Specifically, the questionnaire was divided into four sections. Section A was designed to obtain information on participants' demographic and educational background while Section B solicited information on the participants' intention to further their higher level of studies and destinations. Section C focused on the participants' self-perception related to the improvement of their soft skills after going through their education experience in Malaysia, and finally Section D probed the factors influencing the participants' choice of higher education destination; student satisfaction with various factors identified, and their willingness to recommend Malaysia to their family and friends. Most of the instruments used in this study were modified according to the previous studies (Baharun et al., 2011; Lim et al., 2011; Mazzarol & Soutar 2002; Mpinganjira 2011; Pereda et al. 2007).

To investigate the impact of the motives (investment and consumption), a logit model was employed to measure the probability of the currently enrolled international students' choice to remain in Malaysia as their destination to further their study which can be described as follows:

Assuming that there are latent variables which represent an individual's underlying choice to remain in Malaysia as the destination to further their study, and these latent variables are associated with individual characteristics (*Xs*). Let Y^* represent these latent variables and assume Y^* is a linear function of *Xs*, then,

$$Y_i^* = X_i\beta + \varepsilon_i \tag{1}$$

where
Y_i^* = underlying choice to remain in Malaysia as the destination to further their study
X_i = independent variables
ε_i = error terms

The model assumes that the observed outcome on choice (as revealed by the participant) is related to Y^* (which is unobservable). The observed international students' choice to remain in Malaysia as the destination to study further (*Y*) takes the nominal category of 0 (not being chosen), and 1 (being chosen). Then, the value of *Y* is observed as:

$$Y_i = \begin{cases} 1 & if\ Y_i^* > 0 \\ 0 & if\ Y_i^* \leq 0 \end{cases} \tag{2}$$

Assuming that the error term in the latent equation (1) is logistically distributed, the probability that the currently enrolled international students' choice to remain in Malaysia as the destination to further their study is given as:

$Pr(Y=1\,|\,X) = Pr(Y^*>0\,|\,X)$
$\qquad\qquad = Pr(X\beta + \varepsilon > 0\,|\,X)$
$\qquad\qquad = Pr(\varepsilon > -\,X\beta\,|\,X)$
$\qquad\qquad = Pr(\varepsilon < X\beta\,|\,X)$

Thus, the cumulative density function (cdf) of the error distribution will be:

$$Pr(Y = 1|X) = F(X\beta) \tag{3}$$

where *F(.)* is the logistic cumulative density function (cdf), and *Pr(y=1*$\,|\,$*X)* is the probability of choosing Malaysia given the X.

The maximum likelihood estimation was used to estimate the probability, thus the value of X_i and β need to be identified. The probability of observing the value of *Y* is described as:

$$P_i = \begin{cases} \Pr(Y_i = 1|X_i)\ if\ Y_i = 1\ is\ observed \\ 1 - \Pr(Y_i = 1|X_i)\ if\ Y_i = 0\ iso\ bserved \end{cases} \tag{4}$$

And if the observations are independent, the likelihood equation will be in the form of:
$$L(\beta|Y,X) = \prod_{i=1}^{N} P_i \tag{5}$$

Thus, substituting P_i into the function of $L(\beta|Y,X)$, we obtain:
$$L(\beta|Y,X) = \prod_{y=1} Pr(Y_i = 1|X_i) \prod_{y=0}[1 - Pr(Y_i = 1|X_i] \tag{6}$$

The area of cdf function is now replacing the probability of observing the value of *Y* in the likelihood function, which allows us to obtain the following equation:

$$L(\beta|Y,X) = \prod_{y=1} F(X_i\beta) \prod_{y=0}[1 - F(X_i\beta)] \tag{7}$$

Finally, the log is incorporated into equation (7) to obtain the log-likelihood equation:

$$lnL(\beta|Y,X) = \sum_{y=1} lnF(X_i\beta) + \sum_{y=0} \ln[1 - F(X_i\beta] \tag{8}$$

The matrix of X_i consists of the following independent variables:
X_1 = University Environment
X_2 = University Service
X_3 = Academic Quality
X_4 = Education Cost
X_5 = Information Guidance
X_6 = Social
X_7 = Regulation
X_8 = Individual Background
X_9 = Education Background
X_{10} = Financial Background

The model was estimated with the robust variance estimates (Huber/White/sandwich estimator of variance). Overall, the influence of the independent variables on the dependent variable was shown by the estimated coefficients. The marginal effect of the independent variables on the probability of choosing Malaysia as the destination to study further was calculated from the estimated coefficients holding the values of other independent variables at various mean values, respectively.

In-depth interview
In-depth interview is one of the qualitative techniques frequently used to obtain an individual perspective on a particular idea or situation (Boyce & Neala, 2006). Boyce and Neale (2006) stated that an in-depth interview is useful to obtain a person's thought or behaviour as well as explore new issues. In this study, some second year and third-year international students currently studying in UUM were interviewed for their view on the decision to remain in a host country and the perception of the quality of the education.

Findings
Descriptive Statistics
This section describes the demographic characteristics of the participants. The majority of the participants were male (62.5%) as opposed to female (37.5%). In terms of the level of study, the majority of the participants were from the undergraduate level (72.8%) while the rest the postgraduate level. Students from South East Asia (37.5%) recorded the highest percentage followed by those from the African Nation (35.3%) and the Middle East (19%). Table 1 depicts the profile of the participants.

Table 1: Demographic

	Frequency	Percentage (%)
Gender:		
Male	115	62.5
Female	69	37.5
Level of Study:		
Undergraduate	134	72.8
Postgraduate	50	27.2
Home Country:		
African Nation	65	35.3
Mainland China	13	7.1
South East Asia	69	37.5
Middle East	35	19.0
India Subcontinent	2	1.1

Logistic regression

Logistic regression was conducted to estimate the choice of the currently enrolled international students of Malaysia as the destination to further their study. There were two comparison groups (1 = choose Malaysia, 0 = otherwise). The overall fitness of the model in Table 2 shows that the estimated model fit well into the sample at the 1% significance level. The value of Pseudo R2[1] was 0.3649. About heteroscedasticity[2] problem, Cameron and Trivedi's test failed to reject H_0, which indicates no evidence of heteroscedasticity problem in the estimated model. Furthermore, multicollinearity test was carried out based on the variance inflation factor (VIF). The value of VIF was in the range of 1.28 to 2.76[3], implying no multicollinearity problem in the model (based on the rule of thumb of 10[4]) (Gujarati, 2003).

The Percentage Correctly Predicted[5] (PCP) is also presented. The value of PCP was 79.64%, which means that the model correctly predicted about nearly 80% of the outcomes in the sample. In conclusion, the results of the goodness of fit tests suggest that the estimated model was fit.

Table 2: Goodness of fit test

	Results
Prob > chi2 (Overall fit test)	0.0000
Pseudo R2	0.3649
Heteroscedasticity* (Cameron & Trivedi's test)	0.4204
Multicollinearity (VIF)	1.28 to 2.76
Percentage Correctly Predicted (PCP)	79.64%

---

[1] McFadden's pseudo R2 index that more than 0.1 was consider acceptable (Long, 1997).

[2] Heteroscedasticity occurs when the disturbance variance does not vary across the observations (Greene, 1997).

[3] The VIF test was conducted only on the independent variables. Multicollinearity refers to a linear relationship among the independent variables; thus, a dummy variable with categorical values of zero and one only is not suitable to be included. Even if the dummy variables are included, the independent variables' results do not change significantly (VIF for the continuous variables are still below 10) (Gujarati, 2003).

[4] If the VIF of a variable exceeds 10, which will happen if R^2 exceeds 0.90, high collinearity is likely to exist (Gujarati, 2003).

[5] To ascertain how fit the data is to estimate the model, we can use the hit-miss table, that is the number of participants whose actual choice to choose Malaysia is correctly predicted (Long, 1997). In a binary category model, it is practicable to correctly predict at least 50% of the outcome by the model without the knowledge of the independent variables (Long, 1997).

After confirming that the model had been fit, the logistic regression analysis was then carried out using all 169 useable samples. Table 3 presents the estimated logit model. The result indicates that the consumption motive was dominant in influencing the currently enrolled international students' choice to choose Malaysia as the destination to further their study compared to the investment motive. The finding is quite different from that reported in some studies such as Asgari and Borzooei (2014), Diana and Ooi (2013), and Foster (2014) that found that both investment and consumption motives were of equal importance in influencing international students' choice of a higher education destination[6]. The finding of this study also points out that the consumption motive, such as university environment, was positively significant at the 1% level, and the pecuniary benefit was positively significant at the 10% level. These outcomes are consistent with other previous studies which also found that they were important factors in influencing international students' decision to study in a particular host nation (Baharun et al., 2011; Han, Stocking, Gebbie, & Appelbaum, 2015; Mpinganjira & Rugimbana, 2009).

However, academic quality was found to be negatively significant at the 10% level. This outcome is inconsistent with Migin et al. (2015), Han et al. (2015), and Nachatar Singh, Schapper, and Jack (2014), who found that academic quality positively influenced international students' decision in their education destination. The present result contradicts the norm, but this research has closed the gap. While the majority of the previous studies investigated new students who had chosen a host country, this research is based on the experience of the currently enrolled international students in a particular host nation for the last two years and above. Hence, this outcome indicates that Malaysia is a *stepping stone* for them to leave Malaysia to other higher education export country after their completion (Diana & Ooi, 2013). An in-depth interview with a few students currently enrolled at the university was conducted to confirm the assertion, and the result is presented in the next section.

In terms of the socio-demographic background, students from Southeast Asia tended to have a lower probability of staying for a further degree in Malaysia as compared to those from the African Nation (a comparison group). This outcome has a significant impact on Malaysian public universities to retain talents from the neighbouring Southeast Asian countries for further study so that labour skills could be developed, expertise shared, job opportunities provided, and networking among the ASEAN member countries promoted. Hence, it is important for Malaysian public universities to encourage the interaction between international and local students by organizing cultural activities, for instance. Such activities could allow the students to share and assist each other in their academic and non-academic life (Shahijan, Rezaei, & Amin, 2015).

With regards to the education background, the finding showed that the international students currently enrolled in Social Sciences, Information Technology & Communication, and Engineering had a lower probability of choosing Malaysia as the destination to further their study compared to those enrolled in Education (comparison group). There is no accurate explanation for this rather than those who enrolled in education normally tended to have a higher possibility to be recruited in the job market.

About the financial background, the result showed that students who spent below USD5,000 per year had a lower probability of remaining in Malaysia as compared to those who spent

---

[6] However, it is important to note that the current study focused specifically on retaining international students for a further degree as compared to previous studies that analyzed the choice of destination.

more than USD15,000 per year (comparison group). To some extent, the result indirectly implies that costs were not a major concern for those who chose to remain in Malaysia for their further studies. As mentioned by Van Bouwel and Veugelers (2009), high education cost may reflect the quality of education offered, and people are willing to pay for quality.

Table 3: Binary logit estimates for full samples of choice to choose Malaysia as a destination to further study

	Coefficient	P-value
Investment:		
Cost	0.2479	0.420
Pecuniary benefit	0.3741	**0.064***
Consumption:		
University environment	1.2218	**0.001*****
University service	0.3910	0.256
Academic quality	- 0.5816	**0.095***
Information guidance	-0.0554	0.832
Social	-0.2184	0.439
Regulation	-0.3309	0.119
Individual experience	0.1643	0.564
Easy access	-0.1924	0.433
General Background:		
Gender	0.0983	0.874
Age	-0.0132	0.869
East Asia	-1.2711	0.337
South East Asia	-1.3762	**0.055***
Middle East	-0.2993	0.661
India Subcontinent	-0.6721	0.563
Education Background:		
Master	1.6617	0.061*
Social Sciences (Social Sciences, Business & Law)	-11.5616	**0.000*****
Information Technology & Communication	-10.9892	**0.000*****
CGPA	0.4385	0.517
Financial Background:		
Part-time jobs	-0.8373	0.347
Self/Parent support	-0.8967	0.287
Spend below USD5,000	1.6211	**0.095***
Spend between USD5,001 −10,000	1.1690	0.126
Spend between USD10,001 −15,000	1.7807	**0.0.28****
constant	3.3507	0.391

Note: *** is significant at 1%, ** is significant at 5%, and * is significant at 10% significance level. The number of observations was 700.

Since the estimated coefficient of a logit model did not provide complete information of the impact of the independent variables on the probability, the analysis of the marginal effect had to be carried out separately, as recommended by Long (1997) (see Table 4). The marginal effect measures the discrete change in probabilities and can provide valuable and meaningful interpretation.

As previously mentioned, the consumption motive was shown to significantly influence the choice of the currently enrolled international students' to remain in Malaysia to further their study. The marginal effect provides further details by showing that a one per cent increase (a seven point-Likert scale) of the university environment factor and the pecuniary benefit was more likely to increase the probability for the currently enrolled international students to remain in Malaysia for further study by 26.6% and 8.14%, respectively. Meanwhile, an increase of one per cent of the academic quality achieved by a Malaysian public university was less likely to encourage the students to remain to further their study by 12.66%.

In terms of individual background, students from Southeast Asia were found to have a lower probability of choosing Malaysia as the destination to further their study than African Nation students by 27.35%. Meanwhile, regarding the educational background, international students who enrolled in Social Sciences and Information Technology & Communication were less likely to choose Malaysia to further their study than those enrolled in Education by 97.45% and 86.75% respectively. Lastly, international students who spent USD5,000 per year were less likely to choose Malaysia to further their study than those spent USD15,000 per year by 21.33%.

Table 4: Marginal effects

	$d(\Pr Y = 1)/dx$
Investment:	
Pecuniary benefit	0.0814
Consumption:	
University environment	0.2660
Academic quality	0.1266
General Background:	
South East Asia	-0.2735
Education Background:	
Social Sciences (Social Sciences, Business & Law)	-0.9745
Information Technology & Communication	-0.8675
Financial Background:	
Spend below USD 5,000	-0.2133

In-depth Interview
The counter-intuitive result of the negative relationship between the decision to remain in a host country and the perception of quality had triggered us to have a closer view of why this was happening. An in-depth interview was carried out to identify the real issue. International students currently studying in UUM reported that although they did perceive that Malaysia has a quality education, comfortable social life, and acceptable rules and regulation, they had decided to further their higher level of study in another country. The main reason was that they considered Malaysia a stepping stone to study in another country because it would be much easier to go to a different country through Malaysia than if they were to apply directly from their home country, as indicated in the following excerpts.

> *Ya* [Malaysia] *has quality lecturers, good environment for study, and is much better than to my country. Didn't feel being discriminated and felt comfortable of the life here* [Malaysia]. *But I am not planning to continue my higher level of*

study in Malaysia. The reason is it will be easier for me to study in Turkey after being in Malaysia for three years. (International student from Somalia)

I do agree that [Malaysia] *has good academic quality and peaceful society. Ya, I never felt discriminated by Malaysians. But I will still choose to further my higher level of study in a country such as the USA or Europe. The reason is they have better quality than Malaysia, and it will be easier for me to get there by coming to Malaysia first because they recognise the English language in Malaysia English as compared to my country* [China]. (International student from Mainland China)

However, one international student stated that he would not choose Malaysia to further a higher level of study because of the discrimination he faced.

Before this, my friends and I did think to remain in [Malaysia], *but we changed our mind and thought of quickly leaving this country after we felt we were being discriminated. Do you know that we are not welcome to join activities even in sport? And when international students lost their stuff, we don't see any action being taken by the officer to help us.* (International student from Somalia)

Conclusion
The purpose of this paper was to examine the factors that influence the decision of international students currently studying in Malaysia whether they wish to remain in Malaysia to further their study. The result suggests that providing a good study environment in the university is the most likely factor that could influence the students to remain in Malaysia to further their study. The result signifies the importance of consumption motives in determining their educational choice. Even though the investment motive (pecuniary benefit) also plays an important role in determining the education destination (Iyanna & Abraham, 2012; Migin, Falahat, Yajid, & Khatibi, 2015; Nachatar Singh, Schapper, & Jack, 2014), the finding of this study showed that the consumption motive tended to dominate the investment motive in retaining the currently enrolled international students for a further degree.

One interesting finding from this study is that academic quality was found to have a negative relationship with the choice to remain in Malaysia for a further study despite the empirical evidence that suggests that the Malaysian government has taken various initiatives to improve the academic quality of Malaysian universities especially the quality of teaching. Through the in-depth interview, we learned that the international students recognised the teaching quality of Malaysian universities but chose to go to other countries by using Malaysia as a stepping stone. The sample of this study is limited only to one of the public universities in Malaysia. It is recommended that future studies include more universities, including private ones.

References

Abd Aziz Ismail, M., & Doria Abdullah. (2014). Malaysia: Becoming an education hub to serve national development. In J. Knight (Ed.), *International Education Hubs* (pp. 101–119). New York: Springer. https://doi.org/10.1007/978-94-007-7025-6

Albrecht, J. W., & Ours, J. C. Van. (2006). Using employer hiring behavior to test the educational signaling hypothesis. *The Scandinavian Journal of Economics*, *108*(3), 361–372. https://doi.org/10.1111/j.1467-9442.2006.00457.x

Alstadsæter, A., Kolm, A.-S., & Larsen, B. (2008). Money or joy: The choice of educational type. *European Journal of Political Economy*, *24*(1), 107–122. https://doi.org/10.1016/j.ejpoleco.2007.04.004

Alstadsæter, A., & Sievertsen, H. H. (2009). *The consumption value of higher education* (No. 2871). Retrieved from http://www.econstor.eu/bitstream/10419/30601/1/617104395.pdf

Asgari, M., & Borzooei, M. (2014). Evaluating the perception of Iranian students as educational tourists toward Malaysia: In-depth interviews. *Interdisciplinary Journal of Contemporary Research in Business*, *5*(9), 81–110. Retrieved from ijcrb.webs.com

Baharun, R., Awang, Z., Padlee, S. F., Rohaizat, B., Zubaidah, A., & Siti, F. P. (2011). International students choice criteria for selection of higher learning in Malaysian private universities. *African Journal of Business Management*, *5*(12), 4704–4714. https://doi.org/10.5897/AJBM10.422

Becker, G. S. (1962). Investment in human capital: A theoretical analysis. *The Journal of Political Economy*, *70*(5), 9–49. Retrieved from http://www.jstor.org/discover/10.2307/1829103?uid=3738672&uid=2&uid=4&sid=21104359955721

Bouwel, L. Van, & Veugelers, R. (2009). Does University quality drive international student flows? *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1538118

Boyce, C., & Neale, P. (2006). *Conducting in-depth interviews: A guide for designing and conducting in-depth interviews for evaluation input.* Retrieved June 4th, 2019 from http://www2.pathfinder.org/site/DocServer/m_e_tool_series_indepth_interviews.pdf

Chapman, D. W., & Chien, C.-L. (2014). Expanding out and up: What are the system-level dynamics? Case study of Malaysia and Thailand. In *Higher education in Asia: Expanding out, expanding up. The rise of graduate education and university research.* (pp. 37–48). Quebec: UNESCO Institute for Statistics. Retrieved from http://www.uis.unesco.org/Library/Documents/higher-education-asia-graduate-university-research-2014-en.pdf

Diana, W., & Ooi, P. W. (2013). The globalization of tertiary education and intra-Asian student mobility: Mainland Chinese student mobility to Malaysia. *Asian and Pacific Migration Journal*, *22*(1), 55–76.

Foster, M. (2014). Student destination choices in higher education: Exploring attitudes of Brazilian students to study in the United Kingdom. *Journal of Research in International Education*, *13*(2), 149–162. https://doi.org/10.1177/1475240914541024

Frey, B. S., & Stutzer, A. (2000). Maximizing happiness? *Germany Economics Review*, *1*(2), 145–167.

Frey, B. S., & Stutzer, A. (2002). The economics of happiness. *World Economics*, *3*(1), 1–17. Retrieved from http://www.bsfrey.ch/articles/365_02.pdf

Greene, W. H. (1997). *Econometric analysis* (3rd ed.). New Jersey: Prentice Hall.

Gujarati, D. N. (2003). *Basic econometrics* (4th ed.). New York: McGraw-Hill/Irwin.

Han, X., Stocking, G., Gebbie, M. A., & Appelbaum, R. P. (2015). Will they stay or will they go? International graduate students and their decisions to stay or leave the U.S. upon graduation. *PLOS ONE*, *10*(3). https://doi.org/10.1371/journal. pone.0118183

Iyanna, S., & Abraham, J. (2012). A comparative cost analysis of undergraduate business

degrees for international students in selected countries. *International Journal of Business and Management*, *7*(4), 145–154. https://doi.org/10.5539/ijbm.v7n4p145

Lim, Y., Yap, C., & Lee, T. (2011). Destination choice, service quality, satisfaction, and consumerism: International students in Malaysian institutions of higher education. *African Journal of Business Management*, *5*(5), 1691–1702.

Long, J. S. (1997a). *Regression models for categorical and limited dependent variables*. California: Sage Publications.

Mazzarol, T., & Soutar, G. N. (2002). "Push-pull" factors influencing international student destination choice. *International Journal of Educational Management*, *16*(2), 82–90. https://doi.org/10.1108/09513540210418403

Migin, M. W., Falahat, M., Yajid, M. S. A., & Khatibi, A. (2015). Impacts of institutional characteristics on international students' choice of private higher education institutions in Malaysia. *Higher Education Studies*, *5*(1), 31-42. https://doi.org/10.5539/hes.v5n1p31

Ministry of Education Malaysia. (2015). *Malaysia Education Blueprint 2015-2025 (Higher Education)*. Retrieved from http://hes.moe.gov.my/event/

Ministry of Education Malaysia. (2018). *Statistik pendidikan tinggi 2017*. Putrajaya.

Mpinganjira, M. (2011). Why choose South Africa? Insights from international undergraduate students. *African Journal of Business Management*, *5*(6), 2180–2188. Retrieved from https://ujdigispace.uj.ac.za/handle/10210/7842

Mpinganjira, M., & Rugimbana, R. (2009). Understanding international student mobility: What motivates African student choices? Retrieved from http://hdl.handle.net/10210/5398

Nachatar Singh, J. K., Schapper, J., & Jack, G. (2014). The importance of place for international students' choice of university: A case study at a Malaysian University. *Journal of Studies in International Education*, 1–12. https://doi.org/10.1177/1028315314523990

Oreopoulos, P., & Salvanes, K. G. (2014). Priceless: The nonpecuniary benefits of schooling. *The Journal of Economic Perspective*, *25*(1), 159–184.

Pereda, M., Airey, D., Bennett, M., & Paper, A. (2007). Service quality in higher education: The experience of overseas students. *Journal of Hospitality, Leisure Sport & Tourism Education*, *6*(2), 55-67. https://doi.org/10.3794/johlste.62.160

Performance Management and Delivery Unit (PEMANDU). (2013). *Economic Transformation Programme Annual Report 2013*. Retrieved from http://etp.pemandu.gov.my/Education-@-Education.aspx

Shahijan, M. K., Rezaei, S., & Amin, M. (2015). International students' course satisfaction and continuance behavioral intention in higher education setting: an empirical assessment in Malaysia. *Asia Pacific Education Review*, 17(1), 41-62. http://doi.org/10.1007/s12564-015-9410-9

Schultz, T. W. (1961). Investment in human capital. *The American Economic Review*, *51*(1), 1–17.

Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, *87*(3), 355-355-374. https://doi.org/10.2307/1882010

Universiti Utara Malaysia. (2013a). About UUM. Retrieved October 8, 2015, from http://www.uum.edu.my/index.php/en/visitor/the-university/about-uum

Universiti Utara Malaysia. (2013b). Vision and mission. Retrieved October 8, 2015, from http://www.uum.edu.my/index.php/en/visitor/the-university/vision-mission