Factors for selecting institution of higher learning among pre degree students in Malaysia

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Abstract

Pre-degree students need to decide regarding courses and universities to further their studies upon completing their two semesters programmes at Centre for Foundation Studies, Dengkil Campus. This research is interested to investigate factors that influence the choice made on selecting courses and institution for further studies by students of Foundation in Science and Engineering of this preparatory centre. A total of 235 questionnaires were distributed to students of the two selected programmes in order to determine factors that influencing the students' decision. Statistical Package for the Social Science (SPSS) version 22 was used to analyze the most important factors considered by students. The test on reliability of the instrument in terms of internal consistency was done using Cronbach's alpha coefficient. The tested variables in selecting the university are academic qualification, campus features, cost of attending university and employment prospect. Results show that employment prospect is the most important factor although there is no significant between male and female. Other factors that is of important are academic qualification, cost of attending university and campus features.

Keywords: Academic Qualification, Campus Features, Financial Aid, Employment Prospect

INTRODUCTION

The Universiti Teknologi MARA (UiTM) Centre For Foundation Studies is under the governance of Higher Learning Department, Ministry of Education (MOE). It was set up in 2005 which comprises of five programmes namely Foundation in Science, Foundation in Engineering, Foundation in Law (UiTM and MOHE) and Foundation in Teaching English as Second Language (TESL). The main objective of these programmes is to mold the excellent Bumiputera Sijil Pelajaran Malaysia (SPM) holders so that they can pursue their study as undergraduates in various universities in Malaysia. UiTM Centre for Foundation Studies acts as a feeder to all the public and private universities in Malaysia. The students are free to choose any local universities which suit to their ambition and academic performance. In order to fulfil one of the many objectives of the government which is to have a social-economic balance between races in Malaysia, the numbers of students' enrolment need to be increased. Hence, it is also the wish of UiTM to have larger percentage of these students to choose UiTM as their destination to do their undergraduate programme as UiTM is moving towards World Class University.

In Malaysia, the increasing number of public and private higher learning institution leads to greater competition in recruiting students each year. Currently there are about 20 public and 78 private universities in Malaysia which have already obtained accreditation from Public Service Department and Malaysian Qualification Agency (MQA). The process of choosing a course and university becomes more complicated as all these public and private universities offer various attractive and quality courses. Students with certain dreams and expectations must make decisions regarding future career by considering many contributing factors. Some of the contributing factors are the student's knowledge or experiences about the field of interest, parental expectation and peer influence, academic qualification, campus features, cost of attending university and employment prospect. These factors may help the students to build a realistic base of information for making choices of courses or university. Thus, it is important to understand what influence the students in selecting a particular course or a particular university to further their studies. Therefore, this research investigates the factors that may influence UiTM Centre of Foundation Studies students' choice of courses and higher learning institution.

LITERATURE REVIEW

Tereza (2013) applied the Theory of Planned Behavior to compare factors influencing university choice among students from Faculty of Economy and Faculty of Technical. The result of the study showed that students of Technical Faculty demonstrated greater interest in gaining deeper knowledge and information in a particular field whilst students of Economical Faculty were more focused on promising career prospect and consequent succeeding in their future career. Furthermore, personal skills, abilities and talent seem to be of significant barriers in the decision-making process among the Technical Faculty students.

The vast development in the Malaysian educational system opens more opportunities for the Sijil Pelajaran Malaysia (SPM) and Sijil Tinggi Pelajaran Malaysia (STPM) holders to continue their study either in the public or private universities. In relation to the factors contribute to the choice of university, a study by Garwe (2016) in Zimbabwe showed that the ranking of a university is not the prominent factor that influence the student's choice of a university. This is because no national university ranking was been done in Zimbabwe. Thus, students chose the university based only on their perceptions on the reputation and status of the university. Another research by Çokgezen (2014) examined the determinants of university choice in Turkey using regression analysis. Results showed that tuition fees, population of the city in which the university was located, academic performance of the university, and language of instruction were important determinants of university choice. The results also revealed that the impact of tuition fees was higher for public university students, while private university students care more about academic performance than do their counterparts in public universities.

Zhang and Dai (2017) study indicated the top five influential factors that influence international students' decisions to choose Malaysia as study destination are: cost of tuition fees, the academic reputation of institution, competitive program fees in comparison to those of other countries, lifestyle and culture, and a safe place to live. Keskinen, Tiuraniemi and Liimola (2008) conducted a research on factors which contribute to the choice of place to study among six psychology departments at various universities in Finland. It was found that the major determinants for university choice were the special characteristics of the teaching and research method in the chosen psychology department. As cited by Dao and Thorpe (2015), concluded that the best tools to attract international students are lower tuition fees, more scholarships and better quality of care and service.

Hua, Sandnes, Yo and Yueh (2010) examined culture differences, course qualities and future careers factors in influencing Eastern and Western engineering student's choice of university. The results of the study showed discipline of study had only minor impact on students' preferences and suggested that a career-relevant curriculum is culture-neutral. The researcher also pointed out that personal advice was the most preferred factor among Taiwanese students when choosing university.

Kusumawati, Yanamandram and Perera (2010) discussed factors that may influence student choice in the selection of an Indonesian Public University. The result showed university marketing was needed to understand its customer needs and wants in order to remain competitive and survive among higher education providers. However, in Vietnam, due to uneven growth in higher education options and potential students, a number of universities have closed some majors and programmes due to low recruitment. Pham Van Dong University closed the financial banking programme while Da Nang University and Dong Thap University closed two majors and 17 majors respectively (Dao & Thorpe, 2015). Therefore, it is important to consider what influences the choices of university applicants so that the correct strategies and tools to attract enough number of students can be implemented.

Hazliza, Nur Azlin, Jasmalina and Ku Nazirah (2017) studied contributing factors on the students' decision in choosing private higher education institution. The result of this study showed that students' choice was strongly affected by well-communicated marketing content of a particular higher education institution. This finding was also supported by Osman, Muhammad and Andy (2013) in which promotion played an important role and gave positive impact on the choice of study. A study by Chaubey, Subramanian and Joshi (2011) found that vital information regarding the course of studies as the most influential factor when students make a choice to further their studies. The study also found financial affordability considerations and institutional infrastructure and facilities to be of important.

Figure 1 Conceptual Framework: Factors Affecting University Choice Decision
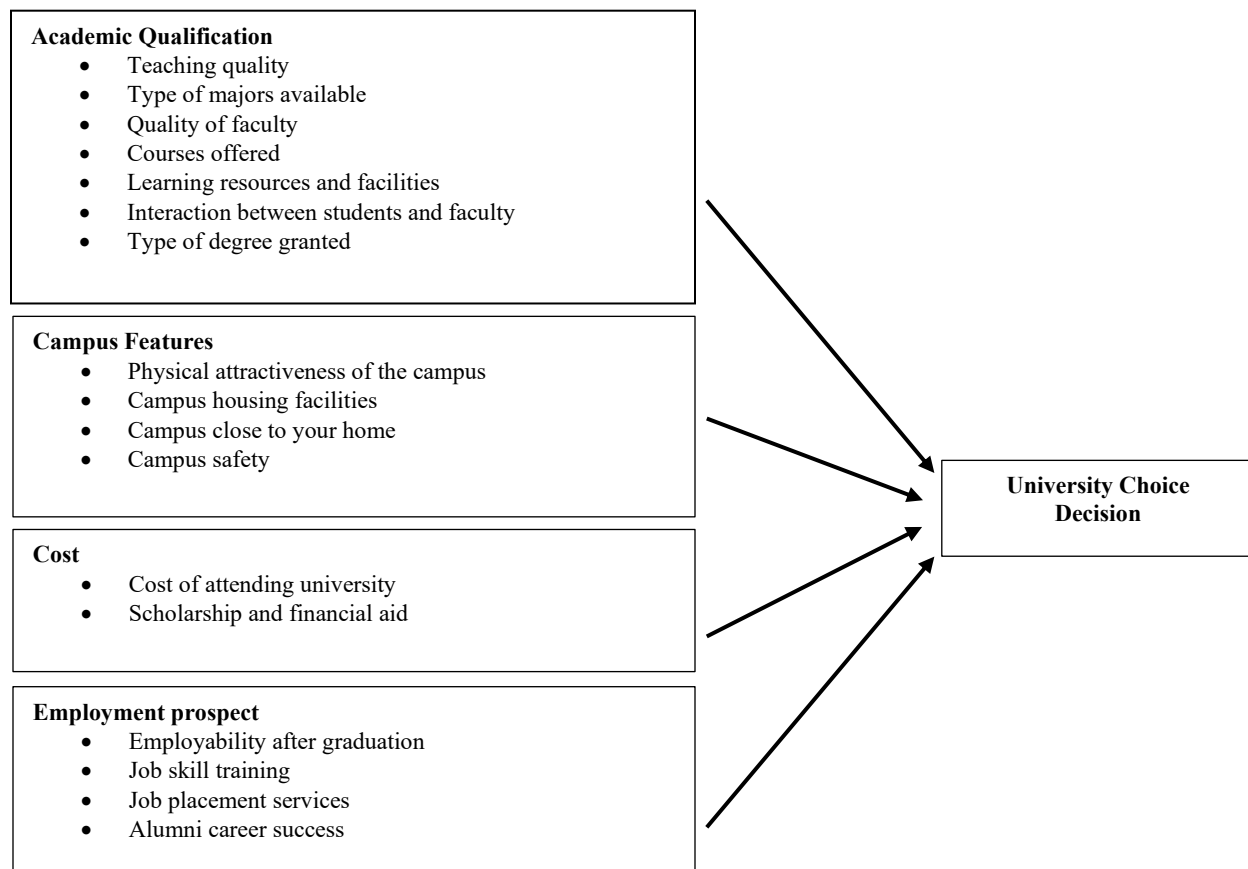
METHODOLOGY

The information gathered using questionnaires and as many as 235 were distributed to students of the two selected programmes; namely Foundation in Science and Foundation in Engineering in order to determine factors that influencing the students' choice of courses and higher learning institution. The questionnaire was adopted and adapted from Jiangyuo (2005). The sampling method used was random sampling since the placement of the students into respective classes was done randomly. The questionnaires were divided into two parts which are Part 1 (Respondents profile) and Part 2 (Factors affecting students' choice of courses and higher learning institution). A structured questionnaire that employed a 5-point Likert scale was used for data collection in Part 2. There are five different responses option of unimportant (1), slightly important (2), Important (3), very important (4) and extremely important (5). The 17-questions survey instrument was divided into four categories which are academic qualification, campus features, financial aid and employment prospect. The first category represents academic qualification consists of six items namely teaching quality, type of majors available, quality of faculty, courses offered, learning resources and facilities, as well as interaction between students and faculty. For campus features, the items are physical attractiveness of the campus, campus housing facilities, campus close to your home and campus safety. The third category which is cost comprises of cost of attending university and scholarship and financial aid. The last category is employment prospect which covers four items which are employability after graduation, job skill training, job placement services and alumni career success.

Statistical analysis has been conducted using Statistical Package for the Social Science (SPSS) version 22. The questionnaires were subjected to reliability test before being administered. In terms of reliability, internal consistency reliability of the instrument was tested using the Cronbach alpha coefficient (α). The result shows that $\alpha = 0.813$ which mean that the instrument was reliable enough to be used in this study as suggested by Sekaran & Bougie(2013). The demographic variables of respondents explored in this study included gender, types of high school attended, location of home and parent's annual household income. The age of the respondents is 18 years old.

RESULTS

Table 1 below shows that the percentage of male (42.6%) and female respondents (57.4%) respectively. They were requested to respond to the questionnaire regarding the previous types of high school attended. It was found that 46. 4% respondents attended daily school, 27.2% attended boarding school, 18.7 % attended MRSM and 7.7% attended Islamic school. Most of the students come from urban area (68.1%) while the rest is from rural area (31.9%). Parents' annual household income was divided into six categories and it was found that income above RM5000 is more than half (50.6%). This is followed by income ranging from RM1001-RM2000 (12.8%) and RM2001-RM3000 (10.2%). Both income range below RM1000 and RM3001-RM4000 had the same percentage (9.4%). Parents' annual household income between RM4001-RM5000 had the lowest percentage (7.7%).

Table 1 Demographic Characteristics of Respondents

	Demographic Variable	Response (%)
Gender	• Male	42.6
	• Female	57.4
Types of High School Attended	• Boarding school	27.2
	• Maktab Rendah Sains MARA (MRSM)	18.7
	• Daily school	46.4
	• Islamic school	7.7
Location	• Urban	68.1
	• Rural	31.9
Parent's annual household income	• Below RM1000	9.4
	• RM1001-RM2000	12.8
	• RM2001-RM3000	10.2
	• RM3001-RM4000	9.4
	• RM4001-RM5000	7.7
	• Above RM5000	50.6

Descriptive analysis on the overall items (Table 2) affecting students' choice was done using mean analysis. It was found that among the seventeen items selected, the top five factors that ware ranked by students are employability after graduation (4.84) as the first important item followed by teaching quality (4.70), campus safety (4.69), job skill training (4.61), and scholarship and financial aid (4.49). The least three important item were alumni career success (3.85), physical attractiveness of campus (3.72) and campus close to your home (3.10).

Table 2 Overall Items Affecting Students' Choice

Factors	Mean	Std. Deviation	Ranking
Teaching quality	4.70	0.638	2
Types of majors available	4.29	0.796	13
Quality of faculty	4.46	0.628	10
Courses offered	4.48	0.636	6
Learning resources and facilities	4.47	0.675	9
Interaction between students and faculty	4.07	0.891	14
Types of degree granted	4.31	0.736	12
Physical attractiveness of campus	3.72	1.048	16
Campus housing facilities	4.47	2.159	7
Campus close to your home	3.10	1.435	17
Campus safety	4.69	0.600	3
Cost of attending university	4.32	0.889	11
Scholarship and financial aid	4.49	0.786	5
Employability after graduation	4.84	0.430	1
Job skill training	4.61	0.585	4
Job placement services	4.47	0.700	8
Alumni career success	3.85	0.965	15

The items were grouped into four factors (Table 3) namely academic qualification, campus feature, cost, and employment prospect. Results show that employment prospect was ranks as the most important factor followed by academic qualification, cost and campus features. Academic qualification and cost have the same mean but academic qualification has smaller standard deviation.

Table 3 Important Factors Affecting Students' Choice

Factors	Mean	Std. Deviation	Ranking
Academic Qualification	4.41	0.70	2
Campus Features	3.83	2.163	4
Cost of attending university	4.41	0.837	3
Employment prospect	4.44	0.670	1

Analysis on the most important items according to gender was also investigated. Table 4 shows the list of most important items with means above 4.50. It was found that for both male and female, they ranked employability after graduation, teaching quality, campus safety and job skill training as the four most important items. The choice of most important items is similar for both genders.

Table 4 Most Important Items for Gender

Gender		Mean	Std. Deviation
Male	Employability after graduation	4.82	.475
	Teaching quality	4.67	.694
	Campus safety	4.62	.646
	Job skill training	4.51	.609
Female	Employability after graduation	4.86	.392
	Teaching quality	4.75	.556
	Campus safety	4.74	.559
	Job skill training	4.68	.556
	Courses offered	4.53	.634
	Learning resources and facilities	4.50	.611
	Quality of faculty	4.50	.598
	Scholarship and financial aid	4.50	.755

The study also focuses on the influence of locality of the respondents (Table 5). There are two groups of respondents which are urban and rural. The urban respondents identify five items with means above 4.50 that are employability after graduation, campus safety, teaching quality, job skill training and courses offered. Meanwhile, respondents from the rural area listed seven items with means above 4.50 which are employability after graduation, teaching quality, job skill training, campus safety job placement services, learning resources as well as facilities and scholarship and financial aid.

**Table 5** Most Important Items for Location

Location of home in an (a) urban or (b) rural area		Mean	Std. Deviation
Urban	Employability after graduation	4.83	.467
	Campus safety	4.74	.518
	Teaching quality	4.72	.618
	Job skill training	4.57	.621
	Courses offered	4.50	.615
Rural area	Employability after graduation	4.87	.340
	Teaching quality	4.71	.629
	Job skill training	4.68	.496
	Campus safety	4.58	.735
	Job placement services	4.51	.721
	Learning resources and facilities	4.51	.683
	Scholarship and financial aid	4.50	.757

Table 6: Most Important Items for Income

Parents annual household income	Mean	Std. Deviation	Parents annual household income	Mean	Std. Deviation
Below RM1000			**RM3001-RM4000**		
Teaching quality	4.91	.294	Employability after graduation	4.70	.703
Employability after graduation	4.91	.294	Campus safety	4.65	.714
Scholarship and financial aid	4.82	.395	Learning resources and facilities	4.57	.590
Campus safety	4.68	.568	Job skill training	4.52	.730
Job skill training	4.68	.568			
Courses offered	4.59	.590			
RM1001-RM2000			**RM4001-RM5000**		
Teaching quality	4.90	.305	Campus safety	5.00	.000
Employability after graduation	4.87	.434	Employability after graduation	4.94	.236
Campus safety	4.70	.596	Job skill training	4.94	.236
Job skill training	4.60	.563	Job placement services	4.94	.236
Quality of faculty	4.57	.504	Teaching quality	4.72	.752
Learning resources and facilities	4.57	.504	Scholarship and financial aid	4.72	.669
Cost of attending university (tuition, fees, room)	4.57	.679	Campus housing facilities	4.67	.594
Scholarship and financial aid	4.57	.568	Courses offered	4.67	.485
			Type of degree granted	4.61	.608
			Learning resources and facilities	4.56	.616
			Quality of faculty	4.50	.618
RM2001-RM3000			**Above RM5000**		
Employability after graduation	4.78	.422	Employability after graduation	4.85	.404
Teaching quality	4.65	.775	Teaching quality	4.71	.584
Scholarship and financial aid	4.61	.722	Campus safety	4.67	.598
Campus safety	4.57	.728	Job skill training	4.60	.572
Learning resources and facilities	4.52	.730			

The result of the influence of parents' annual household income (Table 6) shows that across all group of income, the respondents consider employability after graduation as one of the most important items. Scholarship and financial aid were not chosen as an important item in deciding to further their study.

Figure 2 Information Channel
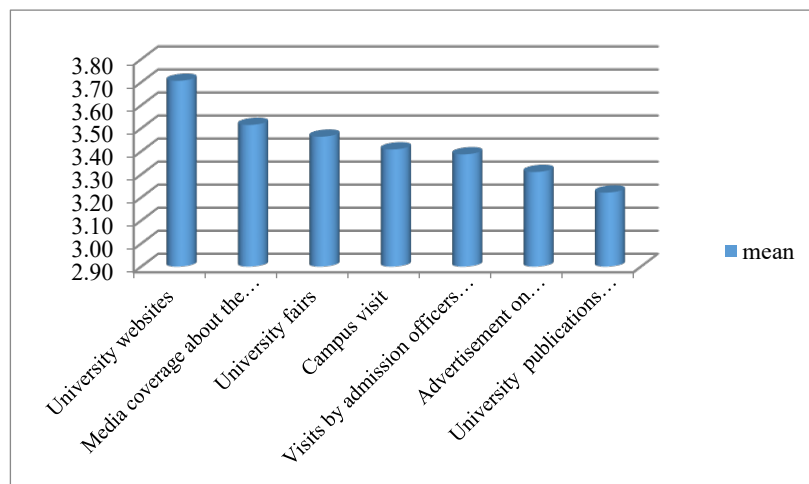
In terms information channels, seven ways of obtaining input were listed and analyzed namely university websites, media coverage about the university, university fairs, campus visit, visits by admission officers to Centre of Foundation Studies, advertisement on newspapers, television, radio, or other media and university publications. It was found that university websites play and important role in giving information

to the students (3.71) while media coverage about the university was ranked as the next important information channel (3.51). The lowest mean value (3.22) was associated with university publications. Figure 2 summarizes the above findings.

DISCUSSION AND CONCLUSION

The finding of the current study identifies the factors that influence the choice made on selecting courses and institution for further studies by students of Foundation in Science and Engineering of this preparatory centre. The result of the study also contributes towards bridging the knowledge gap by adding information on the factors affecting choice of embarking on tertiary education. Among the four major factors that was grouped, employment prospect was ranked as the most important in comparison to academic qualification, cost of attending university and campus features. The outcome of the research is in line with Agrey and Lampadan (2014) and Jiangyuo (2005) where job prospect was found to be the dominant factors contributing to student choice in selecting a university. However, this result contradicts with the finding of Tereza (2013) from Czech Republic in terms of student's major where the finding showed students of Economics Faculty is in favored of employment prospect rather than students from Mechanical Engineering Faculty. Students ranked academic qualification and cost of attending university as next important factors followed by campus features.

Both genders considered employability after graduation as the most important factors in determining the choices of courses and institution to further their studies. However there is no significant difference in term of means between male (4.82) and female (4.86). Next, it was also found out that both rural and urban respondents under the influence of locality, highlighted employability after graduation as the most outstanding determinant. The most striking similarities that was found in this study with regard to parents' annual household income (low to high income) is that employability after graduation was chosen as either first or second important factor in deciding to further their studies. According to Rudhumbu (2017) as parents are the financiers of their children's education, therefore they have a significant influence on where their children go for higher education.

The implication of the study is that university must offer courses that is relevant to the need of future job market. This study also provides an insight on the criteria of selection of universities among current generation that prioritized job security once graduate. This is in line with the students' perception of job specification in the era of Industrial Revolution (IR) 4.0 that emphasizes on automation and artificial intelligence that will make certain groups of employees redundant, replacing them with new workers with the needed skills or with machines that do the job cheaper. This implies that the content of the course offered should be parallel to the requirement of job market of the future. Future research is needed to build on this finding by comparing between science and social science background as this study only confined to two courses of pre-degree.

REFERENCES

Agrey, L., & Lampadan, N. (2014). Determinant factors contributing to student choice in selecting a university. *Journal of Education and Human Development, 3*(2), 391-404.

Chaubey, D. S., Subramanian, K. R., & Joshi, S. (2011). Factors influencing students' choice of institution for higher learning: An empirical study. *Indira Management Review*, *5*(1), 1-15.

Çokgezen, M. (2014) Determinants of university choice: A study on Economics Departments in Turkey. *Journal of Higher Education, 4*(1), 23-31.

Dao, M. T. N, & Thorpe, A. (2015). What factors influence Vietnamese students' choice of university. *International Journal of Educational Management, 29* (5), 666-681.

Garwe, C. E. (2016). Increase in the demand for private higher education: Unmasking the paradox. *International Journal of Educational Management, 30*(2), 232-251.

Hazliza Haron., Nur Azlin Abdul Hamid., Jasmalina Jamaluddin., & Ku Nazirah Ku Azan. (2017). Students' decision factors in choosing private higher education institutions. *International Journal of Academic Research in Business and Social Sciences, 7*7(11), 1372-1382

Hua, L. J., Sandnes, F. E., Yo, H. P., & Yueh, M. H. (2010). Cultural factors influencing Eastern and Western engineering students' choice of university. *European Journal of Engineering Education*, *35*(2), 147-160.

Jianguo, L. (2005). *Factors influencing students' choice of selected private universities in China* (Doctoral thesis, Bringham Young University, Utah). Retrieved from https://search.proquest.com/openview/c6d2463a49b0c1c44cb0b3d77d39c5a9/1?pq-origsite=gscholar&cbl=18750&diss=y

Keskinen, E., Tiuraniemi, J., & Liimola, A. (2008). University selection in Finland: How the decision is made. *International Journal of Educational Management, 22*(7), 638-650.

Kusumawati, A., Yanamandram, V. K., & Perera, N. (2010). University marketing and consumer behaviour concerns: The shifting preference of university selection criteria in Indonesia. *Asian Studies Association of Australia 18th Biennial Conference* (pp. 1-16). Adelaide, South Australia: Australia. *International Journal of Academic Research in Business and Social Sciences*, *7*(11), 1372-1382.

Osman, M. Z., Muhammad, T. J., & Andy, B. I. (2013). Factors influencing students' decision in choosing private institution of higher education in Malaysia: A structural equation modelling approach. *Asian Academy of Management Journal, 18*(1), 75-90.

Sekaran, U. & Bougie, R. (2013) *Research Methods for Business Approach*. 6th Edition, New York, Wiley.

Tereza, N. (2013). Analysis and comparison of factors influencing university choice. *Journal of Competitiveness, 5*(3), 90-100.

Rudhumbu, N. (2017). Factors that influence undergraduate students' choice of a university: A case of Botho University in Botswana. *International Journal of Learning and Development*, *7(2)*, 27-35.

Zhang, S., & Dai, L. (2017). Factors that influence the international students' decisions to study in Malaysia. *Management Science and Engineering*, *11*(2), 35-38.