A STRUCTURED EQUATION MODELLING STUDY ON FACTORS INFLUENCING STUDENTS’ CHOICES OF PRIVATE INSTITUTIONS OF HIGHER EDUCATION

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ABSTRACT

Purpose: The aim of this study is to examine factors influencing students’ choices of private institutions of higher education.

Theoretical framework: The conceptual model for this study was developed based on previous research in the field of higher education in Malaysia and globally. The conceptual model has seven variables which can influence students’ choices of private institutions of higher education.

Design/methodology/approach: A survey instrument in the form of a structured questionnaire was designed based on a careful review of pertinent literature. This study collected empirical data from 378 respondents. Multiple regression analysis is used to test the significance of the research model.

Findings: The research reveals a positive association between the following variables and the university selection decision: programmes offered, employment opportunities and education and campus facilities.

Research, Practical & Social Implications: The implication drawn from this study aids the government policy makers and private higher education managers on factors that can affect student enrollement.

Originality/value: The key value of this research the outcomes of this study will increase enrolment at private higher education institutions (IPTS).

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RESUMO

Objetivo: O objetivo deste estudo é analisar os fatores que influenciam as escolhas dos alunos de instituições privadas de ensino superior.

Estrutura teórica: O modelo conceitual para este estudo foi desenvolvido com base em pesquisas anteriores no campo do ensino superior na Malásia e globalmente. O modelo conceitual possui sete variáveis que podem influenciar as escolhas dos alunos de instituições privadas de ensino superior.

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UN STRUCTURED EQUATION MODELING STUDY ON FACTORS INFLUENCING STUDENTS’ CHOICES OF PRIVATE INSTITUTIONS OF HIGHER EDUCATION

Design/metodologia/abordagem: Um instrumento de pesquisa na forma de um questionário estruturado foi projetado com base em uma revisão cuidadosa da literatura pertinente. Este estudo coletou dados empíricos de 378 entrevistados. A análise de regressão múltipla é usada para testar a significância do modelo de pesquisa.

Resultados: A pesquisa revela uma associação positiva entre as seguintes variáveis e a decisão de seleção da universidade: programas oferecidos, oportunidades de emprego e educação e instalações do campus.

Implicações de pesquisa, práticas e sociais: A implicação extraída deste estudo ajuda os formuladores de políticas governamentais e os gerentes de ensino superior privado sobre os fatores que podem afetar a matrícula dos alunos.

Originalidade/valor: O valor chave desta pesquisa os resultados deste estudo aumentarão as matrículas em instituições de ensino superior privadas (IPTS).

within the MOHE’s purview. In 2012, the gross enrolment rate in higher education in Malaysia reached 48 percent. There are presently more than a million students enrolled in public and private HLIs. This is a 70 percent increase in enrolment over the previous decade. The plan also forecasts an annual increase of 5.1% between 2012 and 2025, from 455k to 867k student enrolments (National Education Strategic Plan 2015-2025). The key goal is to keep students satisfied which in turn will support the organization’s operations to reach a competitive position that gives it success and sustainability (Bahia et al, 2023; Shanmugam & Chandran, 2022; Shrivastava, 2023). Determinants of customer satisfaction have been studied in numerous research attesting to its importance (Faisal et al, 2020; Haque et al., 2020; Nellikunnel et al. 2017; Nellikunnel et al., 2015; Ogiemwonyi et al., 2018; Rahman et al., 2011; Rahman et al., 2017; Rahman et al., 2018; Yi et al., 2018).

For almost a decade leading to 2010, the overall number of private education entities slightly rose from 537 to 540; however, by 2018, this number had reduced to 457. Increases in IPTS have expanded study possibilities for university students. As example, the student population rose from 628,479 in 2001 to 650,651 in 2005. The population increased by 71 percent to 1,110,360 in 2010. There was a moderate rise of 11 percent, from 1,236,164 students in 2015 to 1,325,560 students in 2017, from 2015 to 2017. (increase of 7 percent).

The investment a student makes in postsecondary education, whether in terms of money or time, is directly proportional to the student's future career. As the expense of the IPTS continues to climb, both the student and his or her parents are extra careful while selecting an institution. Therefore, universities must be prepared to meet the expectations of parents and students, particularly as competition among Malaysia's higher education institutions increases.

This study's objective is to examine the link between the theoretically-related dimensions of programme, university reputation, career opportunities, cost, education and campus amenities, location, and peer and friend networks. This research reviews essential college admissions literature. A triangulated qualitative and quantitative study is done to develop a seven-factor college admissions model. Finally, the practical and theoretical implications are discussed.

LITERATURE REVIEW

Few factors impact the university selection of students. The study found several elements that impact a student's university selection. Institutional characteristics, the influence
of peers and friends, price, and amenities are examples of factors. Several research on various perception-related debates on university admissions choices are provided below.

Programme - The availability of IPTS programmes will impact the student's selection of university. According to Joseph, the most important factor in picking a university is its programmes (2011). The students were well-informed about their chosen university and had selected the programme for which they desired to apply or get admitted in advance (Misyer, Mohamed Tajudin, and Ravindran, 2018). Kumari, Tirumalai, and Rudhumbu (2017) revealed that “82.5% of students were affected by the academic programmes of the institution”. “The compatibility of their study programme with their personalities, employment opportunities, and hobbies had a significant influence on their university and course choices” (Aziz et al., 2012).

Reputations Of Academic Institutions -Reputable programme are crucial university's image is the most influential element in prospective students' selection of public institutions. Khalid (2016). Tan, Hussin, and Sidin (2003) reported that “students' college decisions appear to be heavily influenced by the quality of instruction, the institution's reputation, and the marketability of their degrees”. Teng (2016) stated that “reputation is highly subjective; thus, it might be beneficial for your child to speak with professionals in a sector in which he or she is interested to get their opinions”. “73.5 percent of the students surveyed reported that the institution's image and reputation had a significant impact on their choice to enrol” Kumari, Tirumalai and Rudhumbu (2017).

Employment Opportunities - Economic variables, such as the link between the university and labour markets, tuition, prospects for obtaining a career outside of the institution, and opportunities for finding a job within the university, ranked top among the factors affecting university selection (Aliesmaili and Jafari, 2013). “The compatibility of their study programme with their personalities, job possibilities, and interests had a substantial impact on their university and course selection” (Aziz et al., 2012).

According to Loren Agrey (2014), there is a high likelihood that students will be able to find employment after completing their chosen curriculum. Micceri, and Wajeeh (1997) found "graduates acquire decent employment" to be a significant finding. “65.6% of students thought that students at the university had a greater possibility of becoming hired, which influenced their decision to enrol (Kumari, Tirumalai and Rudhumbu, 2017). However, Mohamed Tajudin, Misyer, and Ravindran (2018) found” job aid offered by the institution to be the least significant across all groups".
Costing - According to Micceri, and Wajeeh, (1997), "Low Tuition/Cost has a considerable impact on college selection". Students are eager to enrol in an IPTA that offers affordable education. Wagner and Fard (2009) found that the expense of schooling is crucial. Maamon, Nor, and Edrak (2015) stated that the "cost of living will be their primary consideration". According to Khalind (2016) research, the "availability of scholarships is the most essential element in the decision-making process". "Students registered at the university with the expectation of receiving scholarships (Kumari, Tirumalai and Rudhumbu, 2017). It is reasonable for students to be concerned about their tuition costs. It has been asserted that "financial aid is crucial in assisting students to pursue a higher degree of education" (Azan, et. Al., 2017). Joseph (2011) examines the fact that students are eager to enrol in IPTS.

Students are more likely to choose IPTS that gives financial help if it offers education at a reasonable price. According to Plooy, and Jager (2006), the "availability of financial help for post-secondary education is another major global concern". Aliesmaili, and Jafari (2013) state that "altering the way of tuition payment, such as by providing students with loans or delaying payment until after they graduate and find employment, can be a factor in attracting students". However, Chitra (2013) finds that "financial variables have a less significant influence". Mohamed Tajudin, Misyer, and Ravindran (2018) stated that finance remained a key aspect, and that students were prepared to pay and suffer higher education costs as long as bursary aid was available and they were able to enrol in their selected course.

Campus Facilities - According to a research by Loren Agrey (2014), "students favour colleges that give an updated learning environment, contemporary amenities, and an aesthetically beautiful campus". Micceriand Wajeeh (1997) reported that the "academic reputation of an institution was regarded by the majority to be based on the university's employment of cutting-edge technology, technology in the classrooms, and a superior library on campus". Campus amenities of an institution are a crucial element influencing students' decision to enrol (Lau, 2009). Wagner and Fard (2009) discovered that the IPTS's physical attributes and amenities are also major contributors.

Zain, Jan, and Ibrahim (2013) found that the key factors of perception were experienced lecturers, an appropriate curriculum, qualified lecturers, and knowledgeable lecturers (2013). The study by Kumari, Tirumalai and Rudhumbu (2017) revealed that the quality of the institution's personnel significantly affected student enrollment decisions. Joan et al. (2015) indicate that industry-trained professors are a significant criterion for college or university selection. Tan, Hussin, and Sidin (2003) emphasised that college operators must evaluate the
quality of instruction, the institution's image, and the campus environment in order to attract students.

Situation - Aliesmaili and Jafari (2013), Students' emotions and moods, the expense of travelling to the university, the cost of boarding, and their weekend use are all influenced by the proximity of the university. Joseph (2011) stated that "location" is the most influential criterion, using phrases such as "university's location is great" and "university's location is strategic." The findings of Lau (2009) indicate that “students place greater emphasis on the institution's physical characteristics, such as its location”. Micceri, and Wajeeh (1997) stated that "wanted to be close to home"; the proximity of the campus to home and place of employment made it possible to attend and complete a degree at colleges (1997). According to Kumari, Tirumalai and Rudhumbu (2017), students were impacted by the institution's location. In contrast, distance is more of a benefit than a burden. This might indicate that the “pupils desire to become autonomous and stand on their own, or that they lack an appropriate learning atmosphere at home.” (Plooy and Jager, 2006).

Peers - Joan, et al. (2015) concur that parents have the largest influence over their children's future college or university selection. Family impacts play two crucial functions, namely socialising individuals and influencing their college choices (Azan, et. Al., 2017). According to Lau (2009), a collection of influential persons, such as family members, friends, classmates, professors, and counsellors, impact the study intentions of Malaysian students. Tan, Hussin, and Sidin (2003), 75.7% of the students questioned allegedly made the ultimate decision to enrol at a certain college on their own. 15.7% of respondents indicated that their parents made the ultimate choice. 5.2 percent of respondents indicated that their choice of institution was determined by the government. The majority of the latter were government scholarship recipients. Only 3.3% of respondents indicated that their sibling, family, or business entity made the ultimate decision. According to Jaya Chitra (2013), the effect of external factors such as family members is less significant. (Mohamed Tajudin, Misyer & Ravindran, 2018). Other elements, such as influences from family, friends, and peers, were considered as less significant (Wagner & Fard, 2009).

Figure 1 illustrates the planned structure for this project. The framework illustrates the hypothesised links between the variables, and study choice.

Figure 1: Proposed Conceptual Model

Independent Variables

- Programme (PRGM) H1
- Reputation of the University (REP) H2
- The Employment Opportunity (EO) H3
- Pricing (PR) H4
- Education and Campus Facilities (Ed) H5
- Location (L) H6
- Peers and friends (P) H7

Dependent Variables

- College choice decision

H1 Program has a significant and positive relationship with College Choice
H2 Reputation of the University has a significant and positive relationship with College Choice
H3 The Employment Opportunity has a significant and positive relationship with College Choice
H4 Pricing has a significant and positive relationship with College Choice
H5 Education and Campus Facilities has a significant and positive relationship with College Choice
H6 Location has a significant and positive relationship with College Choice
H7 Peers and friends has a significant and positive relationship with College Choice
H8 Race moderate the relationship between Program and College Choice
H9 Race moderate the relationship between Reputation of the University and College Choice
H10 Race moderate the relationship between The Employment Opportunity and College Choice
H11 Race moderate the relationship between Pricing and College Choice
H12 Race moderate the relationship between Education and Campus Facilities and College Choice
H13 Race moderate the relationship between Location and College Choice
H14 Race moderate the relationship between Peers and friends and College Choice

Source: Proposed by authors (2023)

METHODOLOGY

A survey based questionnaire was devised to investigate the factors that influence student selection of ITPS in Malaysia. Students graduating from secondary school in Malaysia who have not enrolled in a postsecondary institution are the source of the survey’s collected data.
These pupils will be admitted to the higher education institution if they fulfil the program's prerequisites. This research is aimed at students who have completed high school and are in the process of deciding on a college major. Students completing SPM, STPM, university foundation, Diploma, A level, Matriculation, and UEC are the target audience for this study.

Schindler and Cooper (2014) state that the sample size should be proportionate to the size of the population from which it is derived. Students were asked to complete 378 surveys in total.

For this quantitative research, a questionnaire is designed as a tool to collect information on the intended study selection; the acquired data serve as the primary data. The questionnaire is divided into two sections namely the socio demographic and college dimensions questions.

The data collection questionnaire was adapted from questionnaires created by Joseph (2011) and Zain, Jan and Ibrahim (2013). The questionnaire uses the five-point Likert scale, with 1 representing "Essential," 2 representing "High Priority," 3 representing "Medium Priority," and 4 representing "Low Priority" and 5 representing "Not a Priority." This format may be found in Questionnaire Section B. Likert scales are likely more dependable more adaptable to a large respondent size. It has the benefit of being simple and quick to administer (Schindler and Cooper, 2014).

RESULTS AND DISCUSSION

The descriptive demographic distribution of respondents by gender, race, education level, and family income shows that there were 64 percent female responses and 34 percent male respondents. In East Malaysia, they were 3 percent Malay, 47 percent Chinese, 7 percent Indian, and 13 percent of mixed ethnicity. Approximately three quarters (74 percent) of respondents have attained the SPM level of schooling. 43% of them are from households with a monthly income of less than RM3,000.00.
Figure 2 illustrates the model's overall results. Acceptable R2 and good construction dependability are shown to illustrate the model's strong fit (Gefen et al., 2000). The model's ability to forecast, as indicated by the R2 score, is another crucial component (Chin, 1998; Komiak and Benbasat, 2004). Composite reliability and average variance extracted (AVE) assessment, as indicated in Table 3, are the two most important reliability metrics used in this study. Composite reliability does not assume that all indications be weighted equally (Chin, 1998), which suggests that composite reliability may be a more suitable method for evaluating dependability. It is advised that the composite dependability should be more than 0.7. (Barclay et al., 1995; Fornell and Larcker, 1981). The other measurement, AVE, indicates the amount of variation that a concept restricts from its indicators in relation to the degree of measurement error (Chin, 1998). The recommended minimum critical value for AVE for the first-order factor is 0.5. (Hu et al., 2004). It is anticipated that the composite reliability and AVE values reported in Table 3 would satisfy these objectives.

Table 1 Correlation Matrix of Variables to AVR Square Root

| Source: Proposed by authors (2023) |
Convergent validity is the capacity of items in a scale to arrive or load concurrently as a single structure. It is calculated by probing each indicator block’s loadings. The loadings should be more than 0.70, which indicates that the indicators share more variation with their respective latent variable than with error variance. A lower limit of 0.50 may suffice (Chin, 1998). In this investigation, all route coefficients are statistically significant. Discriminant validity denotes the extent to which an individual item factor correlates with its predicted concept relative to other item factors (Kerlinger, 1973; Swafford et al., 2006). Cross-loadings and the link between correlations among first-order constructs and the square roots of AVE are used to approximate discriminant validity (Chin, 1998; Fornell and Larcker, 1981) Table 1.

Table 2 Correlation Matrix of Variables to AVR Square Root

| Source: Proposed by authors (2023) |

The cross-loadings shown in Table 3 demonstrate sufficient levels of discriminant validity for each construct. Each item component with a bold value in Table 3 has a high loading to the relevant latent construct and a low loading to other latent constructs. The association between AVE square root values and correlations between first-order latent constructs leads to the same result. In Table 4, it is evident that the square roots of AVE (bold, diagonal numbers) are greater than the correlations between the components (off-diagonal values).
RESULTS AND DISCUSSION

The model's assumptions were evaluated for sufficiency using R², regression weights, bootstrap critical ratios (t-values), and path variance (Table 4). Five of the eight investigated hypotheses for direct relationships are found to be supported and significant. In H1, the programme is anticipated to have a beneficial effect on college selection. This hypothesis was supported by the path coefficient of 0.18 and the t-value of 2.99 in Table 4. In H3, it is projected that work opportunities positively influence college selection. Table 4's data supported Hypothesis 3 with a path coefficient of 0.148 and a t-value of 1.98. This hypothesis is confirmed by the path coefficient of 0.234 and the T-value of 2.948. Hypothesis H5 states that education and campus facilities have a beneficial effect on college selection. Three direct association hypotheses, H2, H4, H6, and H7, are not supported by the testing of hypotheses. For H2, the route coefficient is -0.016 and the T-value is 0.227. For H4, the path coefficient is -0.121 and the T-value is 1.929. For H6, the path coefficient is 0.074 and the T-value is 0.919. From the examined moderating relationship hypotheses, the prediction that race has a substantial moderating influence on dependent variables is not supported. Lower Level of Confidence Intervals (LLCI) for H8 are -0.109, and Upper Level of Confidence Intervals are 0.17. Lower Level of Confidence Intervals (LLCI) for H9 are -0.247, and Upper Level of Confidence Intervals are 0.17.
Intervals are -0.015. Lower Level of Confidence Intervals (LLCI) for H10 are -0.143, and Upper Level of Confidence Intervals are 0.215. Lower Level Lower Level of Confidence Intervals (LLCI) for H12 are -0.202 and Upper Level of Confidence Intervals are 0.151, H13 LLCI are -0.078 and Upper Level of Confidence Intervals are 0.268, and H14 LLCI are -0.044 and Upper Level of Confidence Intervals are 0.169.

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<th>Table 4 Hypothesis Results</th>
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<td>Path Coefficient</td>
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<td>H1: Program → College Choice</td>
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<td>H14: Race → Program → College Choice</td>
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CONCLUSION

This study seeks to uncover the characteristics that influence students' selection of IPTS in Malaysia. According to the results of the factor analysis, three factors are concluded as important and positively impact students' selection of higher education institutions: a) Program (Availability of the needed programme at the university, Accreditation/recognition by the government, Professional recognition of the programme). b) Employment Possibility (Graduate have high rate of employment recruitment, Employment assistance provided by the university, University being part of a larger industrial group, Availability of practical training or exposure during the study duration). c) Education and Campus Facilities (access to state-of-the-art classrooms, labs, and libraries, The availability of qualified teaching personnel, such as professors, doctors, and industry professionals, the university's infrastructure, the campus's environment and cultural diversity, and the campus's vast range of extracurricular activities). It has been determined that, in order of priority, students regard Education and campus facilities, followed by employment opportunities, and finally programmes, to be the most essential criteria when selecting an institution of higher education. Reputations of the university, cost, location, and classmates and friends have a lesser impact on students' college selection.
decisions. Authorities of higher education institutions must be informed of the sought students' requirements and selection criteria. Institutions of higher education should try to provide students with a comprehensive education, not simply a piece of paper. High learning institutions must offer excellent services that meet the requirements and expectations of postsecondary students in order to achieve these objectives (Hussin, Tan and Md. Sidin, 2000).

The implication of this study is that institutions of higher education might now revise their marketing strategy in light of the aforesaid conclusion. The administration of the institution of higher education may now check the service quality offered to their customer, the student. Everyone is aware that a degree is an investment in one's future as a result of heightened knowledge. A student was fully aware that their future depended heavily on earning a credential from a higher education institution. In addition, the student will choose to specialise further in the topic of study in order to master the career. A thorough understanding of their profession will position them at the forefront of their business. In addition, education fairs and college representatives' countrywide tours are valuable sources of information for prospective students. It is difficult to determine the frequency of such activities that would have the maximum impact, but a recommendation of statewide tours and education fairs would be an excellent starting point. Marketers in the education sector should consider the findings of this study when developing promotional strategies for universities and colleges.

This investigation is not without constraints. The limitation of sample size may be quite small in terms of the proportion of students who represent all candidates for the IPTS. As a result, some may claim that the sampling size cannot represent all candidates in the country, and the results of the sampling may not reflect the full picture. For the aim and context of this case study, it is crucial to emphasise the importance of student choice in picking private schools. Therefore, the study's findings cannot be generalised to the entire population. Another restriction is the chosen sampling method. Convenience sampling has many shortcomings such as lacking accuracy and population representation. In addition, the poll was performed online, and while every precaution was taken, a substantial amount of subjectivity remains. Consequently, the study could only be interpreted as a survey to discover the "factors" affecting student decisions in selecting education entities in Malaysia, with fairly restricted implications.

This study was conducted to gain insight into the factors that influence Malaysian students' selection of private institutions of higher education, and the results contribute to the existing body of knowledge. Future research might be conducted on the basis of student proximity, whether in the city or the suburbs, comparing students in KL, JB, and Penang to
those in second-tier towns like as Kuching, Kota Kinabalu, Seremban, Melaka, Pahang, Kelantan, Terengganu, and so on. Additionally, additional study might be conducted on the media advertising factor that influences student college selection decisions. Given that both the student and the parent are involved in the college decision-making process, the advertising medium must appeal to both decision-making groups. For future research on the topic, it would also be of interest to examine the extent to which the cost of registration influences the factors that influence Malaysian students' selection of private institutions of higher education.

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