Choice Criteria for Private Tertiary Programs at a Private Higher Education Institution

Nurlida Ismail  
Leow Yen Mee  
Chen Chee Hoong  
Cheryll Lim Tsu-May  
Ng Foon Lee  
Taylors College, Kuala Lumpur  
Email: nurlidalismail.taylors.edu.my

ABSTRACT

The objective of this study is to examine key determinants that influence students’ choice in selecting a program. The theoretical framework was adapted from Chapman’s (1981) and Cubillo, Sanchez and Cervino’s (2006) models. Our study of students’ choice criteria was conducted using the survey questionnaire method and a five-point Likert scale was employed. The sample for the testing and refinement process consisted of 299 first year tertiary students from across all three programs in a private higher education institution. All our hypotheses are supported by Multiple Linear Regression analysis. The results indicated that program evaluation is the most significant factor that influences students’ program choice. This is followed by the college’s effort to communicate with students and level of educational aspiration. However, it was found that significant persons have the least influence on students’ program choice.

Introduction

The growing number of students in search of higher education and the emergence of new affiliated business programs with renowned foreign universities have increased the need for understanding the behavior of
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students from a cross national perspective in private higher education institutions. Therefore, it will be of our interest to explore the behavior of students regarding their progression in choosing a program.

The tertiary programs of the private higher education institution (Taglor’s College, Subang Jaya, Malaysia) identified for this research work, are allied with Australian and UK universities. In this context, we investigate the key determinants that influence students’ decision in selecting one program over the others.

There is limited literature analyzing students’ choice criteria for private tertiary programs at a private higher education institution. The findings of this study will provide evidence of important factors influencing students’ program choice and also to provide an insight as to why students choose a particular program over the others.

Research Questions

The following research questions were developed to guide our study:

• What are the antecedents to choice selection criteria for the tertiary programs in a private higher education institution?
• Which are the dominant criteria that influence the students’ choice of a tertiary program?

Literature Review

There is little available literature analyzing the decision making process of prospective students in choosing a particular program within the same private higher education institution. However for the purpose of this study, two models developed by Chapman (1981) and Cubillo, Sanchez, and Cervino (2006) respectively were adapted and utilized.

Chapman (1981) developed the Model of Student College Choice that identifies two major sets of influences of students’ choice in choosing a private higher education institution. As illustrated in Chapman’s model, a student’s choice is influenced by two classes of factors namely student characteristics and external influences. The latter comprises of: (1) significant persons; (2) the fixed characteristic of the college; and (3) college effort to communicate with students.

On the other hand, the Model of International Students’ Preference by Cubillo, Sanchez, and Cervino (2006) explains the factors influencing the purchase intention of international students in choosing a college.
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Factors identified are: personal reasons, country image effect, city effect, institution image and program evaluation.

Chapman’s (1981) and Cubillo, Sanchez, and Cervino’s (2006) models form the skeletal structure of our study. These two models have been modified in order to conform to our research interest. As a result, the Model of Program Choice (Figure 1) was developed to rationalize students’ tertiary program choice criteria for a private higher education institution. The conceptual model comprises two classes of factors namely student characteristics and external influences. The latter comprises significant persons, program evaluation, and college effort to communicate with students.

There is a need to change the dependent variable of students’ choice of college from Chapman’s (1981) model to student’s choice of program. The purpose of our study is to explore the student’s tertiary program choice in a private higher education institution instead of students’ college choice as there are limited literatures on the former issue. The sample respondents are students of a private higher education institution. Hence, the institution is treated as a constant. The same rationale applies to the elimination of three variables that include general expectation of college life, college’s choice of students and fixed college characteristic. These three variables will not be investigated as private higher education institution is hypothetically fixed. In addition, aptitude is not applicable in our study as aptitude tests are not practiced in the private higher education institution under investigation. Likewise, socioeconomic status (SES) is not included in our model as it is related to the choice of college instead of to the choice of tertiary program. Finally, as this academic work examines the program choice of students, we have adopted the program evaluation construct from Cubillo, Sanchez, and Cervino’s (2006) model as one of the external variables for our research model.

Conceptual Framework

Students’ Choice of Program

The increasing number of new tertiary programs offered by private higher education institutions has forced these institutions to give increasing attention to the student’s choice process. Students are becoming more discerning customers, demanding better value for money and becoming more selective in choosing an educational institution. Recruitment of
Figure 1: Model of Program Choice

Sources:
Adapted and modified from:
students is becoming a primary matter to colleges which has resulted in colleges having to understand the factors that influence students’ choice of tertiary program. As such, there is a pressing need to investigate and identify which factors have strong influences on a student’s tertiary program choice.

According to Jisha (2004), “college choice” and “college program” are terms describing factors influencing students’ decision on which institution to attend. In addition, Wajeeh (1997) asserts that college choice is a decision influenced both by external factors (demographic, economics, social, political and institutional factors) and individual factors (characteristics and needs). Wajeeh (1997) further elaborated that the relative importance of these factors are largely determined by the characteristics of student and the types of universities, either metropolitan or traditional.

Many researchers have investigated and addressed the issues on college choice and the influences or factors identified are varied (Wajeeh and Micceri, 1997; Jisha, 2004; Joseph and Joseph, 2000; Tierney, 1983; Hossler, 1985).

**Student Characteristics – Level of Educational Aspiration/Expectation**

Expectations refer to what one would perceive or will be achieved or accomplished in the future. Aspirations are wishes or desires expressed by the individual’s hopes of the future (Brookover, Erickson and Joiner 1967). Most researches believe that educational aspiration and expectation are important determiners influencing students’ choice of program. However, they do operate in different ways.

A study focusing on the level of aspirations of individuals to pursue their studies by Sewell and Shaw (1978) found that parental encouragement serves as an indicator of enrolment in post-secondary educational institution. Research by Blau and Duncan (1967) indicated that family socioeconomic background and students academic ability are predicted to have a joint positive effect on aspiration for college. This research is further supported by Cabrera and La Nasa (2000). They cited parental encouragement, parental collegiate experiences, and student aptitude as factors which influence students towards their educational aspiration.

As educational aspiration and expectation are moderately correlated with the academic performance (Tillery and Ballinger, 1973), we can
predict that students with good pre-university performance would usually have a higher level of aspiration towards the outcome of their choice of program.

Hence, we establish the first hypothesis as follows:

H₁: Level of educational aspiration/ expectation has a significant positive influence on the choice of private tertiary programs.

External Influences

Significant Persons

In choosing a tertiary program, students are greatly influenced by the comments and advice of their friends and family members. In a study by Trent (1969), parents appear to exercise the greatest influence on students’ plans. According to the research done by both Binsardi and Ekwulugo (2003), students perceive that recommendation from fellow friends is a valuable source in communicating a good institutional and program image. In discussing the same issue, peer behavior is identified as one of the influencing factors on students’ program choice (Zietz and Joshi, 2003).

In addition, as manifested by Chapman (1981), the influence operates in a few ways. According to Chapman (1981), significant persons may offer direct advice as to where or which program the student should enroll in and, in the case of close friends, their decision of program choice will influence the student’s decision.

Therefore, the second hypothesis is this:

H₂: Significant persons have significant positive influence on the choice of private tertiary programs.

Program Evaluation

Program evaluation is conceptualized as the attitude of consumers toward targeted programs (Peng, Lawley and Perry, 2000). Hooley and Lynch (1981) observed that the suitability of the program is the most important factor. They argued that students would accept any level of the other factors. Prospective students will compare programs offered with those being promoted by competing institutions in order to check their suitability (Krampf and Heinlein, 1981). However, Binsardi and Ekwulugo (2003)
see a different trend from those of Hooley and Lynch (1981). The former shows that product and promotion variables have increasing importance in the choice selection process.

The elements that influence program evaluation comprise a wide selection of courses (Qureshi, 1995), their quality (Turner, 1998), international recognition of the degree (Turner, 1998), availability of courses, entry requirements (Bourke, 2000), costs and availability of financial support (Qureshi, 1995).

Other studies have addressed issues on students’ choice and have identified several determinants. Studies by Baird (1967) and Bowers and Pugh (1972) identified good faculty and high academic standards as important determinants for students in making their choices. According to Turner (1998), as cited in Cubillo, Sanchez and Cervino (2006), international recognition of degrees and their quality can influence students’ program evaluation. Program specialization is another determinant of program evaluation where students will seek the availability of majors in their preferred choice of specialization (Bourke, 2000).

Tillery and Kildegaard (1973) suggested that cost is probably more of an influence on whether a student goes to college than on which particular college he or she attends. Research by Mundy (1976) tends to support Tillery and Kildegaard’s (1973) claim. In the context of studying, it is assumed that student’s tertiary program choice is also influenced by the cost of the tertiary programs being offered.

The influence of financial aid on students’ program choice is one of the most widely researched issues. The availability of financial support (Qureshi, 1995) can influence the outcome of students’ program evaluation. If costs pose an obstacle to further studying, financial aid is expected to reduce or eliminate the problem. Differences in costs are ideally absorbed by the financial aid offered by either the private higher education institutions or their affiliated universities. Hence, financial aid is supposed to influence students’ program choice positively at least so far as cost was the restraining factor. Financial aid comes in the form of educational scholarships, study grants, student discounts and education funds in collaboration with other established organizations.

This leads to our third hypothesis:

\[ H_3: \text{Program evaluation has significant positive influence on the choice of private tertiary programs.} \]
College Effort to Communicate with Students

Marketing is the process of planning and executing the conception, pricing, promotion and distribution of ideas, goods, services, organizations, and events to create and maintain relationships that will satisfy individual and organizational objectives.

(Boone and Kurtz 1998)

The above refers to the institution’s marketing activities that consist of everything the institution can do to influence the demand for its products. Promotion as defined in Kotler, Wong, Saunders and Armstrong (2005) refers to the activities that communicate the merits of the product and persuade target customers to buy it. Promotion that is regarded as communication is an integral part of marketing. Today, more companies are adopting the concept of integrated marketing communication where under this concept the organization combines and coordinates its many communication techniques that include advertising, personal selling, sales promotion, public relations, and direct marketing in order to deliver a clear consistent and compelling message about the organization and product (Schultz, Tenenbaum and Lauterborn, 1990).

Many researchers have demonstrated that communication techniques such as written information, campus visit, open day, and education fair effectively attract students. Tillery and Kildegaard (1973) as cited in Chapman (1981) reported that students who expect to go on to college are more apt to actively seek out college information. It is safe to assume that students seek program information that is offered by a particular college through reading written materials such as brochures, and visiting education fairs. According to Chapman (1981) printed materials do influence students’ decision, but not to the extent or in the way college admissions officers or high school guidance counselors believe.

A study by Joseph and Joseph (2000) indicated that a different way of increasing awareness of the programs offered is through educational fairs and it is also an appropriate venue to discuss career opportunities. In the same literature, it was also mentioned that the Internet is becoming an accepted source of information for students and program information should therefore be made available through it.

Dominick, Johnson, Chapman and Griffith’s (1980) study on the other hand mentioned that campus visits by prospective students are the most effective recruiting activity by both college admissions officers and high school guidance counselors.
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Finally, the fourth hypothesis is:

H₄: College efforts to communicate with students have a significant positive influence on the choice of private tertiary programs

Methodology

The purpose of our study is to determine factors contributing to the program choice of first year tertiary students admitted to the private higher education institution under investigation. The study focused on the significant persons, level of educational aspiration/expectation, program evaluation, and college effort to communicate with students as indicators of final program choice.

Sample Size

Sample size versus number of analysis:

For dependent and independent variables together:

\[
\frac{n}{k} = \frac{299}{49} = 6.10 \geq 5
\]

Where \(n\) = sample size; \(k\) = number of variables.

Referring to the calculation shown above, the ratio of sample size over number of variables is 6.10 which exceeds the minimum requirement of 5. In conclusion, the ratio of 6 is fit to support the variables in our study.

Research Design

By adopting Cooper and Schindler’s (2001) research process, a quantitative research study was undertaken to seek answers for the research questions and to verify the hypothesis with numerical data. The Model of Program Choice was investigated by using survey method and structured questionnaires as the instruments to find correlations between the variables that were identified earlier. The approach used is consistent with the procedures recommended for college choice literature written by noted researchers (Espinoza, 2002; Joseph and Joseph, 2000; Soutar and Turner, 2002; Price, Matzdorf, Smith and Agahi, 2003).
Instrumentation (Survey Questionnaire)

The survey questionnaire used in collecting the data was adopted from the questionnaires developed by Wright and Nelson (1994), Hanson, Norman and Williams (1998), and Burns (2006). These questions were modified to address various factors that influence program choice. In addition, our group also designed some questions for the purpose of this study.

The survey questionnaire contained four sections as indicated below:

Section A: Program Choice

Section B: Student Characteristics Influencing Program Choice
   i. Pre-U/Secondary Performance
   ii. Level of Educational Aspiration/Expectation

Section C: External Factors Influencing Program Choice
   i. Significant Persons
   ii. Program Evaluation
   iii. College Effort to Communicate with Students

Section D: Administrative and Demographic Information

A five-point Likert scale was employed for the items under Program Choice, Level of Educational Aspiration, Significant Persons, Program Evaluation, and College Effort to Communicate with Students.

Data Collection

The sample in this study was first-year students of the institution under investigation across the Australian and UK tertiary programs. A cross-sectional study was conducted and a sample of 299 students was taken based on a non-probability sampling procedure. A self-administered data collection method was carried out and the selected participants were briefed about the intended study before requesting them to complete the questionnaires. The 15-minute survey was conducted during lectures, with prior permission obtained from the respective lecturers, in order to capture conclusively all first-year tertiary students.

Data Analysis

The data was analyzed using SPSS version 14. For the purpose of summarizing our respondents’ profiles, descriptive statistics such as frequencies, and percentages were utilized. Cronbach alpha was
employed for measuring internal consistency within the five constructs in our study. In order to establish the boundary of the descriptive variables and constructs and to ascertain the internal validity and convergence, exploratory factor analysis was used. Exploration and the analysis of the data were carried out through multivariate analysis.

**Result**

**Respondents’ Profile**

The sample consisted of 299 first year students enrolled in the Australian and UK tertiary programs offered by the private higher education institution under investigation. Out of the 299 first year degree students, 118 males (39.5%) and 181 females (60.5%) responded to our questionnaire. Based on the statistics of students’ previous education, it was found that the majority of the respondents (60.9%) were from the business foundation program, followed by 42 (14.1%) students from the Pre-U and matriculation program. There were 39 students (13%) from A-Leves or equivalent (STPM and UEC) while the remaining 36 (12%) students were from other local or international colleges. As for the current program enrolled by the respondents, statistics indicate that 254 (85%) students are currently studying in the Australian degree program and the remainder 44 (14.7%) students are in the UK program. Of these students, 52.2% (156 students) are majoring in accounting. On the other hand, 22.4% (67 students) are taking business as their major and 20% (60 students) have chosen to undertake a double major in the disciplines of accounting and business. However, 5.4% (16 students) of the respondents have yet to decide on their major.

**Measurement Assessment**

The Kaiser-Meyer-Olkin (KMO) measures the sampling adequacy which should be greater than 0.5 for a satisfactory factor analysis to proceed. The results for the KMO tests for both dependent and independent variables are 0.824 and 0.850 respectively. These results show that the sample data is fit for factor analysis. In addition, the results for the Bartlett’s Test of Sphericity for both dependent and independent variables are significant (p = 0.0001).
Cronbach’s alpha is the most common estimate of internal consistency of items in a scale. Alpha measures the extent to which item responses obtained at the same time correlate highly with each other. The widely-accepted social science cut-off is that alpha should be 0.70 or higher for a set of items to be considered a scale.

Our study started with one run for each construct at the initial stage. One out of 16 variables for the Program Choice was deleted in order to improve the alpha value. Out of 15 variables for Significant Persons, two variables were deleted. On the other hand, all items were retained for Level of Educational Aspiration, Program Evaluation, and College Effort to Communicate with Students. From there, factor analysis was conducted. It was employed to reduce the number of variables and groups variables with similar characteristics together. Two separate runs were made for dependent and independent variables. To begin with the data reduction process on the dependent and independent variables, principle component analysis with varimax rotation was carried out on 75 variables; suppressed at 0.5. As a result, 49 variables survived. A separate run was conducted on the dependent variable and a simultaneous run was conducted for all four independent constructs to demonstrate the convergence and discriminant within the four constructs. From the reduced factors, a final round of reliability tests was carried out.

In our study, the internal consistency within each of the five constructs is measured using Cronbach alpha. According to Nunally (1978), the value of Cronbach alpha must be at least 0.70 for the variables within a construct to be internally reliable and consistent. As shown in Table 3, the values of Cronbach alpha for both the dependent and independent constructs are greater than 0.81, which comply with Nunally’s requirement.

The purpose of the factor analysis is to show convergence and discriminant of all the variables within the five constructs as shown in Table 3. Principle Component Analysis was employed as the extraction method, where values were suppressed at 0.5. Two separate runs were made. The first run was on Program Choice (C1) alone as the dependent construct. The four independent constructs namely Level of Educational Aspiration / Expectation (C2), Significant Persons (C3), Program Evaluation (C4), and College Effort to Communicate with Students (C5) were included in conducting the second run in order to show the inter-construct convergence and discriminant. The end result for the dependent construct is 37.78%. On the other hand, the cumulative end result for
the four independent constructs is 50.8% which exceed 50% of the total Eigenvalue. In other words, the four constructs are able to explain 50.8% of the statements.

**Multiple Linear Regression Analysis**

A multiple linear regression (MLR) analysis was conducted to investigate the strength of influence for level of educational aspiration, significant person, program evaluation and college effort to communicate with students on program choice. Before the results of the analysis are discussed, the assumptions of MLR are first investigated.

**Testing of MLR Assumptions**

In our study, the histogram of the standardized residual meets our expectations for the normal shape distribution of the residuals. The normal p-p plot of regression standardized residuals for Program Choice also seems to conform to our expectation and thus has not resulted in the violation of the MLR assumption. Finally, in examining the scatterplot between regression standardized residual and regression standardized predicted value, the pattern of data points does not have any definitive patterns. Thus, we further reinforce that MLR is a suitable analysis for our study. As such, we have not violated the assumption on the randomness of the residuals.

**Test of Significance**

The results of the MLR analysis are as follows. The correlation coefficient value is 0.60. This indicates a positive relationship between the program choice as all the independent variables of this study are significantly strong.

The proportion of explained variance as measured by R square for the above regression equation is 0.361. In other words, 36.1 percent of the variation in program choice is explained by level of educational aspiration, significant persons, program evaluation and college effort to communicate with students.

Based on the results, the overall MLR model with the 4 predictors of level of educational aspiration, significant persons, program evaluation and college effort to communicate with students have worked well in explaining the variation in program choice (F = 36.710; df = 4,260; p =
Hence, the overall model based on the table indicates that the model fits the data well because of the significant findings.

MLR analysis was employed to test the association between the Program Choice and the four independent constructs: Level of Educational Aspiration, Significant Persons, Program Evaluation, and College Effort to Communicate with Students. The results are as follows.

H1: The level of educational aspiration/ expectation has significant positive influence on the choice of private tertiary programs.

In the MLR analysis, level of educational aspiration was found to exert a significant positive influence on program choice \( (t = 2.445, p = 0.015, \beta = +0.165) \). Based on these results, H1 is supported. Our results have reinforced the findings of Blau and Ducan (1967) and Tillery and Ballinger (1973).

H2: Significant persons have significant positive influence on the choice of private tertiary programs.

In our analysis, significant persons was found to exert an inverse relationship on program choice \( (t = -0.869; p = 0.386; \beta = -0.032) \). Our findings are not in tandem with Binsardi and Ekwulugo’s (2003) and Chapman’s (1981) results where friends have significant influence on student’s decision.

H3: Program evaluation has significant positive influence on the choice of private tertiary programs.

Our research also revealed that program evaluation exerts a significant positive influence on program choice \( (t = 7.546, p = 0.0001, \beta = +0.505) \) Based on these results, H3 is supported. Therefore, our findings support the view of Turner (1998) and Bourke (2000) which claimed that program evaluation influences program choice.

H4: College efforts to communicate with students have significant positive influence on the choice of private tertiary programs.

Based on the MLR analysis results, college effort to communicate with students exert a significant positive influence on program choice \( (t = 4.529, p = 0.0001, \beta = +0.149) \). Therefore, H4 is supported. Again, our findings agree with the previous results of researchers, such as Joseph and Joseph (2000) and Dominick et al. (1980).
165 .068 .133 2.445 .015 Significant Persons -.032 .037 -.049 -.869 .386
Program Evaluation .505 .067 .409 7.546 .0001 College effort to
communicate with students .149 .033 .263 4.529 .0001

The estimated regression equation is as follows: Program Choice =
11.129 + 0.149 College Effort of Communicate With Students + 0.165
Level of Educational Aspiration – 0.032 Significant Person + 0.505
Program Evaluation.

The beta values seem to indicate program evaluation (beta = 0.409)
as the most important predictor of program choice followed by college
effort to communicate with students (beta = 0.263) and followed by
level of educational aspiration (beta = 0.133).

Discussion and Implications

In order to enhance recruitment of students, there are certain areas on
which the private higher education institution should focus their time and
efforts. The findings of our study reveal that program evaluation is the
key factor that influences students’ program choice followed by college
effort to communicate with students. With respect to program evaluation,
students look upon quality of lecturers, quality and availability of majors,
quality and reputation of programs, international recognition and suitability
of program as factors influencing their choice of program. With respect
to quality of lecturers, emphasis should be on drawing in applicants who
have the appropriate academic knowledge, industrial experience and
teaching skills. To maintain and improve the quality of existing teaching
staff, emphasis on continuous training and development is crucial. In
addition, support for teaching staff to pursue research work and doctorate
degree is another key area to enhance the academic strength of the
program.

As for college effort to communicate with students, it has been found
that participation in education fairs, college open day and campus visits
are important marketing tools for enhancing the students recruitment
process at the private higher education institutions. All aspects of
marketing efforts should provide detailed information about the respective
programs to the potential market. Key selling points such as the quality
and reputation of programs, international recognition, academic
accreditation, program structure and availability of majors and maximum
exemption offered should be highlighted in promotional activities
conducted by the college. Updated college and program information on an interactive website would provide a good impression of this institution and thereafter assist prospective students to make informed decisions about the program choice. In addition, current school adoption and sponsorship programs can be effective marketing tools as they project corporate philanthropy and enhance a positive image of the college.

The implications of this study further suggest that there are a few proactive measures that can be practiced to ensure high student enrolment and create brand loyalty. Student retention is of paramount importance as our findings reveal that the majority of the tertiary students were from Pre-University and foundation programs. In the event of introducing new franchised programs, the focus should be on the international recognition, reputation and quality of the partner universities.

Our findings further show that significant persons such as parents and friends exert the least influence on a students’ program choice as compared to program evaluation and college effort to communicate with students. As such, the college marketing strategy should stress the latter rather than the former. However, this is not to invalidate the importance of word of mouth in promoting the programs. The institution needs to remain aware of the influence that parents and friends have over prospective students. Hence, while talking to students, college representatives need to be talking with the parents who influence these students as well.

Limitations and Direction for Future Research

The data collected is taken within just one institution itself and the student sample is limited to the first year’s students of the tertiary programs offered by the institution concerned. Hence, this result cannot be generalized to other institutions. However, our results show that our model is reliable as a tool if future researchers decide to replicate this study in other private higher education institutions. For the immediate future, such a study, if extended to other faculties of the same institution, would give the management an overall informed knowledge on the choice criteria of its students.

Another direction for the research to take would involve the exploration of moderating factors such as gender, race, socioeconomic status, students’ aptitude or ability, previous academic performance and their impact on students’ choice of program. In addition, research on
program choice can also be conducted from a qualitative perspective as qualitative studies might allow for insights not available from quantitative method such as, the description of the importance of program evaluation. This study can also be expanded longitudinally to track trends in students’ program choice. Lastly, research on foreign students’ choice criteria can be looked into due to the growing number of international students. Their presence marks a new trend in setting Malaysia’s education landscape as the next hub for excellent tertiary education South-east Asia.

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