

**AN EXPLORATORY STUDY OF FACTORS INFLUENCING
THE DECISION OF STUDENTS TO STUDY AT UNIVERSITI
SAINS MALAYSIA**

Jacqueline Liza Fernandez

School of Social Sciences, Universiti Sains Malaysia, Penang

Email: lfjacq@usm.my

The higher education sector in Malaysia includes public and private tertiary institutions. Malaysian institutions of higher learning are facing a host of challenges, including a high degree of competition among institutions due to the emergence of new colleges and universities, reduced funding from the government, and the need to upgrade education services continuously to meet the demands of the market. The challenges are even greater for Universiti Sains Malaysia (USM), an institution that the Ministry of Higher Education chose to transform within the next five years to become the Accelerated Programme for Excellence (APEX) university in Malaysia and a world-class institution. In order for USM to rise to the level of an APEX university and attract the best students, it is important to understand how students select colleges or universities. This study examines: (i) the reasons students pursue higher education; (ii) the sources of information used by students to help choose a tertiary institution; (iii) the factors that influence students' choices of public versus private institutions; and (iv) the factors that influence students' decisions to study at USM. The results of this study indicate that the main reasons that students pursue higher education are to improve their job prospects and to gain knowledge and experience. This study shows that students choose tertiary institutions based on information gathered from various sources, of which, the Internet is the most popular. A student's preference for a public institution is influenced primarily by considerations of quality of education and pecuniary factors. Finally, the decision to study at USM is attributed to USM's strong business links, good reputation, adequate

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facilities, and availability of programmes and courses that suit the students' needs.

Keywords: higher education, student's preferences, public universities

INTRODUCTION AND BACKGROUND OF STUDY

Malaysia has a dualistic higher education system; in other words, the higher education sector in Malaysia includes public and private institutions. Malaysia strives to achieve the status of a high-income and knowledge-based economy; private higher education institutions complement the efforts of public institutions by producing skilled graduates to help achieve this goal. The expansion and liberalisation of the tertiary education sector has increased the number of private institutions of higher learning and the participation of foreign universities in Malaysia, which offers twinning programmes and/or the possibility of establishing branch campuses in Malaysia. The growth of private higher education institutions in Malaysia since the 1990s has widened the selection of universities or colleges for students who wish to pursue their tertiary education; this has increased the competitive nature of the higher education industry for undergraduate students.

With the nation's focus on the higher education sector, the number of all types of higher education institutions (with the exception of non-university-status private institutions) has increased, as shown in Table 1. From 2002 to 2009, the total number of public higher education institutions increased notably from 49 to 89. The total number of private higher education institutions also increased from 537 in 2002 to 570 in 2005; however, it dropped to 460 in 2009 due to the decrease in the number of non-university-status private institutions. In 2002, there were 17 public universities and 11 private universities in the country. By 2009, Malaysia had 20 public universities and 20 private universities.

The growth in the number of higher education institutions has enabled more students to pursue a tertiary education. Table 2 shows the student enrolment in public and private higher education institutions from 2002

to 2009. In 2002, there were 664,402 students enrolled in higher education institutions in this country. Enrolment increased by 58% in 7 years, and in 2009, student enrolment exceeded the 1 million mark.

Table 1: Higher education institutions in Malaysia, 2002–2009

Institution	Year		
	2002	2005	2009
Public			
University	17	18	20
Polytechnic	15	20	27
Community college	17	34	42
Subtotal	49	72	89
Private			
University	11	11	20
University college	1	11	20
Branch campus (local universities)	3	11	22
Branch campus (foreign universities)	4	5	5
Non-university status institutions	518	532	393
Sub total	537	570	460

Source: Ministry of Higher Education (2008; 2010)

Table 2: Student enrolment in higher education institutions in Malaysia, 2002–2009

Institution	Year							
	2002	2003	2004	2005	2006	2007	2008	2009
Public	369,802	383,812	393,403	415,674	450,493	507,438	547,931	566,349
Private	294,600	314,344	322,891	258,825	323,787	365,800	399,897	484,377
Total	664,402	698,156	716,294	674,499	774,280	873,238	947,828	1,050,726

Source: Ministry of Higher Education (2008; 2010)

According to the Ninth Malaysia Plan (Economic Planning Unit, 2006), the percentage of students enrolled in bachelor's degree programmes increased by 40.0% between 2000 and 2005, but the percentage enrolled in public institutions of Higher education decreased by nearly 10

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percentage points in that same time frame, from 74.0% to 65.8%. By 2009, 57.8% of students in first-degree programmes in Malaysia were registered in public institutions, indicating a further shift in students' preferences towards private tertiary institutions (Ministry of Higher Education, 2010). However, public universities in Malaysia still attract the majority of undergraduates. The reasons that many Malaysian students may prefer public universities include:

1. Public universities' degree qualifications are recognised by the Public Services Department (PSD), thus individuals who hold degrees from public universities can work in the public sector;
2. Public universities are heavily subsidised by the government, and, therefore, fees are much cheaper than at private universities;
3. Public universities offer more places for professional and critical courses (e.g., medicine, dentistry, pharmaceutical studies, architecture, engineering, law, and accounting) with qualifications that are mostly accredited and recognised by the respective local professional bodies; and
4. Public universities provide students with a wider choice of programmes in various fields of study.

Student applications for entry into bachelor's degree programmes in Malaysian public universities are handled by a centralised processing agency known as *Bahagian Pengurusan Kemasukan Pelajar* (The Division of Student Admission). This agency of the Ministry of Higher Education is responsible for managing the admission of students into public universities. Applicants provide a list of their choice of universities and programmes and ultimately receive an offer from only one public university; in some cases, the offer may even be from a university or programme that was not included in the applicant's list of choices. All public universities are subject to this system with the exception of Universiti Sains Malaysia (USM). USM has been excluded from this system since 2009, when the Ministry of Higher Education designated USM as the Accelerated Programme for Excellence (APEX) university in Malaysia and entrusted it with the task of transforming itself into a world-class university. Students who wish to study at USM

are required to apply directly to the university and attend an interview arranged by the university; after the application and interview, the selection is made and successful applicants are offered a place at USM.

Given the APEX status of USM and its unique student selection system, it is interesting to study the factors that influence students' choice of USM as the institution for pursuing their tertiary education. Understanding the criteria that affect students' choice of USM over other public universities is pertinent given USM's quest to attract the best students in the country. This study focuses on first year undergraduates in the 2009–2010 academic session, who were the first cohort of students subjected to the new selection process after USM's inception as the nation's APEX university in 2009. The sample used in this study consists of first year undergraduates from one particular school in the university (the School of Social Sciences).

THEORETICAL FRAMEWORK

The decision students make regarding higher education revolves around several issues: first, students who finish their high school education must decide whether to pursue their tertiary education; second, students who choose to further their education must make a choice regarding their programme or field of education and the institution of higher education. This study focuses on the last issue, or the criteria that influences students' choice of institution of higher education. Several theoretical models attempt to describe the factors that influence a student's choice of a specific institution of higher education. The tertiary institution choice models include the following: (i) economic models; (ii) sociological models; and (iii) combined models.

Economic models of human capital investment emphasise rational decision-making behaviour when examining students' college choice. Individuals are assumed to act rationally in ways that maximise their utility, given their personal preferences. Students choose a college based on the level of value that each institution offers by comparing costs with perceived benefits. The underlying assumption of the

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economic models is that students will select a particular institution if the benefits of attending the institution are greater than the perceived benefits of enrolling in other institutions.

Various researchers (Ellwood and Kane, 2000; Avery and Hoxby, 2004; Long, 2004) have used the human capital investment model to examine college choice. An important contribution of the human capital investment approach is its focus on the effects of pecuniary factors (e.g., family income, tuition, and financial aid) on enrolment. For example, Ellwood and Kane (2000) used a human capital investment model to analyse the relationship between family income and college enrolment while controlling for academic ability, tuition and financial aid, and preference (measured by parental education). Although the human capital investment model shows the effects of variables like income and ability on college-related decisions, it has limited usefulness in explaining sources of differences in college choices across groups. The human capital investment model assumes that, even when the expected benefits and costs are the same, two individuals may make different college choices. Research shows that controlling for demand-related factors, such as academic ability, and supply-related factors, such as the availability of financial aid, accounts for some of the observed differences in college enrolment across groups (Perna, 2000); however, these factors do not completely explain differences in college choices. Paulsen (2001) notes that students' perceptions of the economic benefits and costs of higher education vary because of factors that are often non-pecuniary and less tangible. These include differences in expectations about benefits and costs that may be based on differences in access to information about college or differences in intangible contextual aspects, including factors related to family, school, or community, the higher education context, and/or social, economic, and policy contexts.

Sociological models differ from economic models. Economic models assume that students rationally decide which higher education institution offers the highest value, whereas sociological models describe a process that considers decision determinants developed throughout a student's life. Sociological approaches to college choice typically emphasise the ways in which socio-economic characteristics influence students'

decisions. According to sociological approaches, student behavioural variables (e.g., academic performance) interact with background variables (e.g., parent social status) to determine students' educational aspirations.

Sociological models have developed from traditional status attainment models developed in the 1980s (Hearn, 1984; Sewell, Hauser and Wolf, 1986). Traditional sociological status attainment models typically focus on the effects of students' socio-economic status on their educational aspirations. Such models suggest that educational aspirations are determined by academic preparation and achievement, as well as socio-economic status (Hossler, Schmit and Vesper, 1999). More recent research focuses on the ways in which the sociological constructs of cultural and social capital influence students' college choice. Like human capital, cultural and social capital enhance productivity. Cultural capital refers to systems of attributes such as language skills, cultural knowledge, and mannerisms, that are derived partly from one's parents and that define an individual's class status (Bourdieu, 1986). Middle- and upper-class individuals possess the most valued forms of cultural capital (McDonough, 1997). Individuals who lack the necessary cultural capital may lower their educational aspirations because they do not know the particular cultural norms. Social capital is closely related to cultural capital and focuses on social networks and the ways in which they are sustained. Coleman (1988) suggests that parents play a primary role in promoting the social capital of their children while Bourdieu (1986) argues that social capital is derived from social networks.

Sociological approaches are useful for understanding the ways in which structural constraints and opportunities shape an individual's perspective about and orientation towards college choice. Sociological approaches are also useful for exploring differences across groups in college choice. Bourdieu (1986) argues that barriers based on race/ethnicity, class, and gender restrict access to institutional resources. An individual's system of thoughts, beliefs, and perceptions, as well as the types of cultural and social capital possessed, partly reflect an individual's race/ethnicity, class, and gender (Horvat, 2001). Despite these contributions, sociological approaches do not offer a framework for examining how

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individuals ultimately decide whether to aspire to tertiary education, apply for admission to a set of colleges, or enrol in a particular college or university (Manski and Wise, 1983).

Combined models include the most important indicators from economic and sociological models in the decision-making process (Joseph and Joseph, 1998; 2000). These kinds of models allow a considerable amount of analytical power, as they combine sociological perspectives with rational decision making. We discuss three types of combined models: the Jackson model; the Chapman model; and the Hanson and Litten model.

Jackson's (1982) model proposes that students' college choices involve three stages: the preference stage; the exclusion stage; and the evaluation stage. Jackson explains that the preference stage, which includes a student's educational aspirations and attitudes about college enrolment, is shaped by his or her level of academic achievement, family background and social context (e.g., the influence of peers, neighbourhood, and school). In the second stage, the exclusion stage, the student goes through a process of eliminating some institutions from the prospective list. Tuition fees, location, and academic quality are among the factors that may be considered in eliminating higher education institutions. In the last stage, the evaluation stage, students are faced with a choice set of institutions; they make their final choice using a rating scheme.

Chapman's (1981) model posits that student college choice is influenced by a set of student characteristics in combination with a series of external influences. These external influences can be grouped into three categories: the influence of significant persons; the fixed characteristics of the institution; and the institution's own efforts to communicate with prospective students. Both the student characteristics and external influences contribute to and, in turn, are shaped by generalised expectations of college life.

Finally, Hanson and Litten's (1989) model describes college selection as a continuing process. The five-step process is as follows: having college aspirations; starting the search process; gathering information; sending applications; and finally, enrolling. Hanson and Litten identified a broad set of variables affecting the college choice process, including: background characteristics (e.g., parental income, education, and gender); personal characteristics (e.g., academic ability, class rank, and self-image); high school characteristics (e.g., social composition, programmes, and curriculum); and college characteristics (e.g., costs, size, programmes, and punctuality in responding to questions). They also introduced public policies, such as financial support, as intervening variables. The Hanson and Litten model is a cross between Jackson's student-based model and the more institutional-based Chapman model.

Having reviewed the various models describing students' college choice, this research considers the three most representative models (i.e., Jackson, Chapman, and Hanson and Litten) and integrates them into a hybrid-combined model. This integrated or hybrid model takes into account nine factors pertaining to students' college choice; these are: costs, reputation of the institution, course availability, facilities, market links, location, distance, parental influence, and peer recommendation. The hybrid model is a useful tool consistent with the purpose of this research, which is the development of a comprehensive students' college choice model that incorporates all relevant factors that can be used to assist administrators in their marketing efforts.

LITERATURE REVIEW

Studies of students' college choice have typically focused on the issue of factors influencing students' decisions about which institution to attend. The combined models show a diversity of factors that influence students' choices. Some factors are related to the role of other persons, some are related to personal or individual factors, and others are related to institutional characteristics and student perceptions about value and costs. The following is a discussion of the findings of various studies

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regarding some of the main determinants of students' choice of a higher education institution.

One element linked to students' choice of institution is the cost of education and financial aid. According to Cabrera and La Nasa (2000), research consistently shows a significant negative relationship between tuition increases and enrolment. If cost is an obstacle for students, then the solution to the problem is financial aid. Hossler, Schmit and Vesper (1999) found that financial aid lowers the net cost of college attendance. Foskett, Maringe and Roberts (2006) found that flexibility of fee payment, availability of financial aid, and reasonable accommodation costs exert a significant influence on students' choice of a higher education institution.

The reputation of an institution is also a consideration in a student's college choice. Given the growing numbers of higher education institutions, students are becoming more critical and analytical in their selection of educational institutions (Binsardi and Ekwulugo, 2003). Students' perceptions about the reputation and image of an institution are shaped by hearsay, past experience, and marketing activities that promote the institution (Ivy, 2001). Studies show that an institution's good image can strongly affect students' preference for the institution (Mazzarol, 1998; Bourke, 2000; Gutman and Miaoulis, 2003). Hence, higher education institutions need to develop a distinct image to maintain their competitive edge (Paramewaran and Glowacka, 1995).

Students' selection of an institution of higher education is also related to another institutional characteristic, the type of programmes offered by the institution. Hooley and Lynch (1981) suggest that the suitability of the programmes is the most important consideration in students' college choice. Krampf and Heinlein (1981) found that prospective students compared programmes offered by various institutions to assess their suitability. Students evaluate programmes based on the following criteria: selection of courses (Qureshi, 1995); availability of courses and entry requirements (Bourke, 2000); quality and variety of education (Shanka, Quintal and Taylor, 2005); and quality and flexibility of degree/course combinations (Holdsworth and Nind, 2006).

Another institutional attribute that students consider in their decision-making is the facilities provided by the institution. Research findings show that academically gifted students and average students place emphasis on different institutional attributes (Litten, 1980; Tierney, 1983; Seneca and Taussig, 1987). The former evaluate an institution primarily based on the quality of the programmes, while the latter are interested in good programmes as well as factors such as physical appearance and social life. Price, Matzdorf and Agahi (2003) found that high-standard facilities, such as availability of library facilities, computers, study areas, and areas for self-study, play a role in students' choice of an institution. Other facilities that students may take into consideration include recreational facilities (Joseph and Joseph, 1998) and athletic or sports facilities (Maguire and Lay, 1981).

The geographic location of an institution, or its proximity to home, is another factor that has bearing on students' college choice. Jackson (1982) suggests that many students only seriously consider colleges that are located relatively close to their homes and that do not present excessive academic or financial obstacles. Wajeeh and Micceri (1997) and Shanka, Quintal and Taylor (2005) also find that the location of an institution has a significant influence on the choice of college.

In making their decision regarding which institution of higher education to attend, students often consult their parents and family. According to Cabera and La Nasa (2000), parental influence takes two forms: motivational and proactive. At the motivational level, parents maintain high educational expectations for their children; at the proactive level, parents become involved in school matters and discussion of college plans (Miller, 1997; Hossler, Schmit and Vesper, 1999; Perna, 2000). Since parental influence plays a role in students' college choice, institutions of higher education should take into account the expectations of both parents and students to meet their demands in an increasingly competitive higher education market.

To some extent, peers also influence students' college choice. Several studies (Falsey and Haynes, 1984; Joseph and Joseph, 1998; Shanka, Quintal and Taylor, 2005) examined the relationships between student

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interaction with other college-bound students and their college participation. These studies suggest that the more a student interacts with other students with college plans, the more likely he or she will be to consider going to college. On the other hand, a study by Hossler and Stage's (1987) suggests that there is a correlation between non-college-bound students and their non-college-bound peers; in other words, peer influence is also a factor in the case of students who have no plans to pursue their higher education.

Several studies have looked specifically at Malaysian students' choice of a tertiary institution. Rohaizat Baharun (2004) conducted a study based on a survey of three local universities. The findings indicate that the five most important determinants of university preference are the reputation of the institution, the programme structure, the quality of the facilities, the influence of the student's family and peers, and customer orientation in terms of entry requirements and availability of courses/programmes. A study investigating students' preference for University of Malaya (UM), the oldest university in Malaysia, found the top four reasons for students' preference of UM were good job prospects, the reputation of the university, the availability of programmes desired by students, and the reputation of the programme (Nagaraj et al., 2008). Mohar Yusof et al. (2008) also did a study on the selection of higher education institutions. The survey gathered information from three groups of respondents in Kuala Lumpur and Selangor, including prospective students, parents of prospective students and first-year university students; thus, this study comprehensively included responses at the pre-application and post-application stages of university selection. For all three groups, the variables regarded as extremely important were the availability of required programmes, the reputation of the institution, the quality of the lecturers, and financial assistance offered by the university. Among first-year university students, two additional factors were rated as very important: the opportunity to work part time while studying and the cost of tuition. To conclude, all the empirical studies in Malaysia concur that the reputation of the institution and the availability of programmes desired by students are very important considerations in the selection of a higher education institution.

RESEARCH DESIGN

This study used a questionnaire-based approach to obtain data on students' preferences towards studying in a public university in general and at USM in particular. The questionnaire was administered to the first-year USM Social Science undergraduates of the 2009/2010 academic session. The survey questionnaire was prepared in two languages, *Bahasa Malaysia* and English. It was administered to the students enrolled in Introduction to Economic Issues, a compulsory course for first-year students in the School of Social Sciences, in September 2009. This study evaluates 167 valid responses from students. The questionnaire was designed to ascertain:

1. The demographic profile of the students;
2. The socio-economic background of the family;
3. The reasons students pursue a higher education;
4. The sources of information used in choosing a university or college;
5. The factors that influence students' choice between public and private tertiary institutions; and
6. The reasons students chose USM in particular

Descriptive analysis is used to discuss the research findings. The importance of factors influencing students' decisions was ranked using a five-point Likert scale where responses ranged from 1 (not important at all) to 5 (extremely important).

This study, which is exploratory in nature, has some limitations. First, the sample consists of only 167 students and was restricted to undergraduates of one particular programme; hence, the findings may not represent the entire USM undergraduate population. The use of a questionnaire as the survey instrument in this study also gives rise to some problems. The respondents' evaluation of questions in the questionnaire may not be accurate due to students' lack of comprehension of the questions asked. Honesty of respondents in answering the questions during the survey is also difficult to ascertain.

RESULTS

The demographic variables used in this study are gender, age, and ethnicity. The sample is 72.5% female and 27.5% male. The gender composition reflects the present trend in institutions of higher learning, particularly in public institutions, where the enrolment of female students far exceeds the enrolment of male students (Ministry of Higher Education, 2008). The age profile of the students show that 12.0% of the students are 19 years old, 59.9% are 20 years old, 13.8% are 21 years old, and the remaining 14.3% are 22 years or older. Undergraduates in the sample are typically school leavers, who began their tertiary education immediately after completing their secondary education with the exception of a few older students from government agencies who are on study leave and enrolled in the Social Work programme in the School of Social Sciences. The ethnic composition of the sample shows a majority (77.8%) are *bumiputera*, while the non-*bumiputera* students account for only 22.2% of the sample.

The educational background of the students indicates that about 40% of the students completed their upper secondary schooling in urban areas; the rest were from rural schools. The academic performance of the undergraduates based on the CGPA obtained in their pre-university qualification (i.e., Sijil Tinggi Persekolahan Malaysia (STPM)/A-levels/Diploma/Matriculation) indicate that only 8.4% had mediocre results (CGPA less than or equal to 2.5), 35.3% had good results (CGPA between 2.5 and 3.0), and 56.3% were high achievers (CGPA exceeding 3.0). On the whole, the data show that the sample of USM undergraduates in this study meet relatively high academic standards. This is consistent with USM's objective to select students of high quality, given its status as the APEX university.

The socio-economic background of students was assessed based on their household income as well as their parents' education level and occupation. Nearly 80% of the students are from households with a low monthly household income (below RM3000), 16% are from medium-income households (RM3000–RM4999), and only 4% are from high-income families (above RM5000). The skewed income distribution

pattern may be attributed to the high percentage of students from rural areas. In terms of parental occupation, the fathers of students work in various occupations: 20% are professionals; 18% are farmers/fishermen; 14% are businessmen; 11% are sales/service sector workers; and the rest work in other occupations. As for the mothers of the participants in this study, 70% are housewives. Therefore, most students have only one working parent, which may partly explain their low household income.

Reasons for Pursuing Tertiary Education

Students were asked to rate the importance of the various reasons for furthering their education and then asked to specify which of the reasons is the most important. Figure 1 shows the students' ratings of the various reasons. The three main reasons rated as extremely important reasons for pursuing tertiary education are: to get a good job; to increase knowledge; and to gain experience. Approximately 70% of the students' state that getting a good job and gaining knowledge are extremely important motives for furthering their education, while 53% state that gaining experience is an extremely important consideration. These findings are similar to those obtained by Nagaraj et al. (2008), which showed that large percentages (40%–60%) of UM undergraduates also rated these factors as extremely important reasons for pursuing their higher education.

Other reasons for furthering their studies include fulfilment of parental expectations, interest in the field of study, enjoyment of campus life, and the influence of their friends. About 45% of the students consider fulfilment of parental expectations to be an extremely important reason for furthering their education, in contrast to only 7% who regard peer influence as a very important consideration. About 37% of the participants rate interest in the field of study as a highly important factor, while the attraction of campus life is a very important reason for only 17% of the undergraduates.

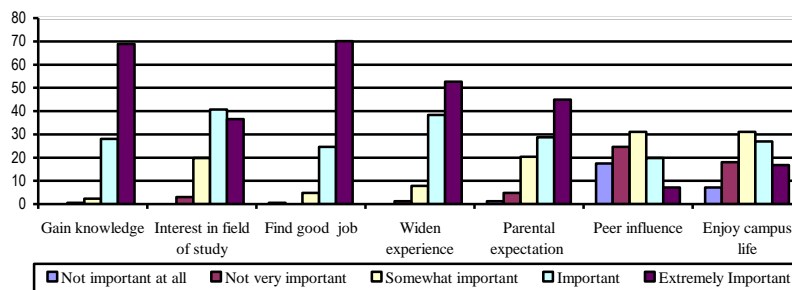


Figure 1: Ratings of reasons for furthering education

Students were also asked to identify the most important factor on which they based their decision to pursue their education. For 40% of the students, the desire to find a good job is considered the most important; the quest for knowledge is considered the most important by 34% of the sample. Only 10% regard an interest in the field of study as the most important reason, while 9% consider fulfilment of parental expectations of utmost importance.

Sources of Information

In this study, students were also asked about the sources of information that were utilised when making their decision regarding tertiary education. Students use a combination of different sources of information to make their decisions about tertiary education. Figure 2 shows the percentage of students in the sample that reported using the various sources of information.

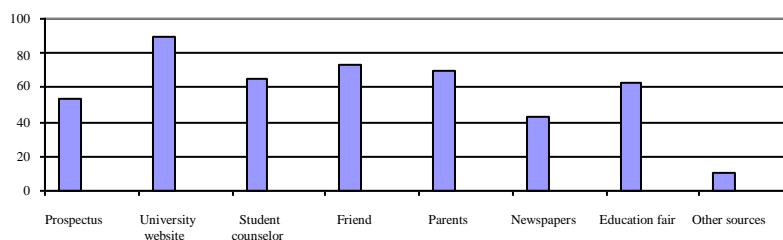


Figure 2: Students utilisation of sources of information

The most widely-used source of information was the Internet; 90% of students gathered information from university websites. Although 60% of the students in this study are from rural schools, it is evident that the Internet is an important tool for urban and rural students alike. Internet access is available in rural schools because of the government's allocation of RM45 million to provide Internet services for rural schools (Companiesandmarket.com, 2009). The high reliance on university websites as a source of information for students has also been found in other universities, both within and outside Malaysia (Nagaraj et al., 2008; Soares and Simoes, 2009).

Other common sources of information were friends (73.0%), parents (70.0%), student counsellors (64.7%) and education fairs (62.3%). These interpersonal sources of information are also widely used by undergraduates at UM (Nagaraj et al., 2008). Printed materials are used to a lesser extent; only 54.0% reported gathering information from prospectuses, brochures, and pamphlets, and 43.0% use the newspaper as a source of information to make a decision. Other sources of information are used by a small group (10.8%).

The students were also asked to specify the most important source of information used in making their decision about higher education. Table 3 summarises the frequency at which each source of information was cited by the students as the most important. A relatively high percentage of students (35.9%) regarded information provided on the university website as the most important source of information. The data also indicate that 21.0% of the sample considered student counsellors as the predominant source of information, whereas 14.0% reported that their

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decisions are based primarily on advice from parents. Although only a small percentage of students regard printed materials (prospectuses, brochures, pamphlets and newspapers) as the most important source of information, the relevance of these sources cannot be underestimated, as the information provided by these materials may be channelled to students via student counsellors and parents.

Table 3: The most important source of information

Source of information	Frequency	Percentage
Prospectus/brochure/pamphlet	14	8.4
University website	60	35.9
Student counsellor	35	20.9
Friends	5	3.0
Parents	24	14.4
Newspapers/magazines	8	4.8
Education fair	15	9.0
Other sources	6	3.6
Total	167	100.0

Selection of Institution of Higher Learning

Students who want to further their education in Malaysia can choose to study in a public or a private institution. There are various universities or colleges that students can choose from among both public and private institutions. This study analyses two main issues with regard to students' choice of an institution of higher learning, including the factors that influence students' choice of a public rather than a private institution and the factors that explain why students choose USM in particular.

Figure 3 shows students' ratings of the various reasons for choosing a public university instead of a private tertiary institution. The three main factors rated as extremely important reasons for pursuing tertiary education in a public institution were the quality of the education; lower costs; and access to financial assistance. About 64% of the students considered the high quality of education in public universities as an extremely important reason for their choice, whereas 50% rate pecuniary

factors (e.g., lower costs of education and readily available financial assistance in public institutions) as extremely important considerations that underlie their choice. More than 60% of students indicated that the high quality of education provided by public universities is the most important reason for choosing a public institution. Indeed, students in public universities are assured of receiving high quality tertiary education, because the efficiency and productivity of public universities are gauged by explicit key performance indicators (KPIs) that encompass various aspects such as teaching and learning, employability of students, and social responsibility (Universiti Teknologi MARA, 2009). Furthermore, public institutions receive government funding, which gives them an edge in providing high quality education because they are able to invest more in staff training compared to private institutions (National Higher Education Research Institute, 2004).

Other reasons for choosing a public university include access to bilingual medium of instruction; adequate and up-to-date facilities; parental advice; peer recommendation; and unavailability of desired courses in private institutions. About 46% of the students regarded the availability of sufficient and contemporary facilities in public universities as a highly important consideration, whereas 32% rated parental advice and the use of two languages in public universities as very important reasons for their preference. Nearly 20% of the students considered unavailability of desired courses in private institutions as a factor of extreme importance. Generally, private institutions have a narrower range of programmes than public universities. Certain courses that students desire to pursue are not offered by private institutions, which influences their preference for public universities. For instance, the Social Work programme in USM's School of Social Sciences is not offered by private institutions. Lastly, peer recommendation is not an imperative factor for most students; only 12% of the students found it very important.

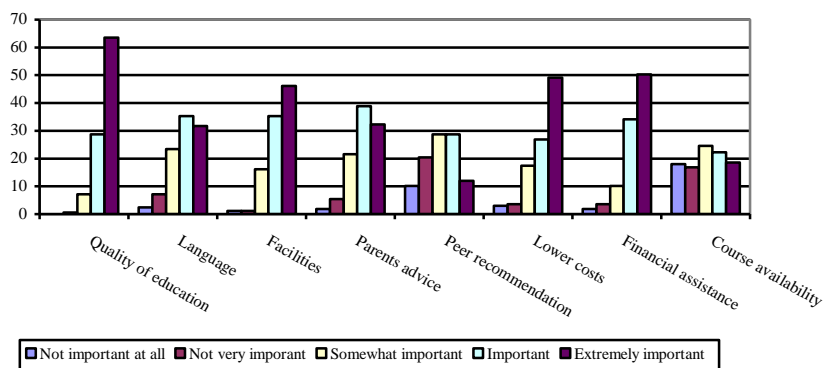


Figure 3: Ratings of reasons for choosing public tertiary institution

Next, we turn to the issue of students' choice of USM in particular. Two main questions were posed to the students regarding this issue. The first question investigated students' ranking of USM in their list of choices of a university or college, and the second question investigated the reasons for choosing USM.

In the first question, students were asked to specify if USM was (i) their only choice, (ii) their first choice, or (iii) not their first choice. In response to the question, 11.4% of the students indicated that USM was their only choice, 46.1% stated USM was their first choice, and the remaining 42.5% answered that USM was not their first choice. The high percentage of students who specified that USM was either their only choice or their first choice is possibly an indication that many students perceive USM as an institution of high standards.

After ranking USM in their list of choices, students were asked to rate the various reasons for choosing USM in particular. Figure 4 illustrates the relative importance of the various reasons based on the ratings given by the respondents.

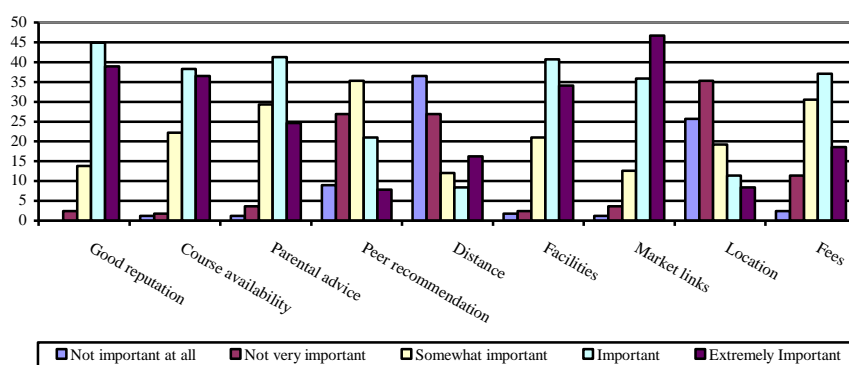


Figure 4: Ratings of reasons for choosing USM

The main reasons frequently regarded as extremely important in the decision to choose USM are: good links with the job market; good reputation of the university; the availability of a desired course or programme; and the adequacy of facilities. In this study, 47% of students regarded USM's good links with the job market as an extremely important reason for choosing USM. USM has good linkages with the local job market, especially because it is located in the state of Penang, one of the most rapidly developing states in Malaysia. USM is also poised to further strengthen its ties with industries through the recently established Division of Industry and Community Network within the Chancellery. USM's good reputation is cited as an extremely important criterion of university selection for 39% of the students. In fact, 33% of the respondents regarded the university's reputation as the most important factor upon which they based their choice. It is noted that USM's reputation has been enhanced since it was chosen as the APEX university, and it is likely that more students will apply to study to USM in the future because of its good name.

About 37% of the students regarded the availability of a course or programme that they wish to pursue as an extremely important consideration for choosing USM. USM offers a broad range of undergraduate programmes that incorporate an extensive variety of

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courses that students can register for as part of their major, minor, and elective packages. The School of Sciences exemplifies this characteristic of USM by offering a liberal yet integrative and inter-disciplinary Social Science education that embodies five main disciplines: anthropology and sociology; economics; social work; development, planning and management; and political science.

The availability of facilities was an extremely important factor for 34% of the students. In ensuring that the campus environment is conducive to learning, various facilities have been made available to the student population, which include the following: teaching facilities (computer and research laboratories, lecture hall complexes equipped with state-of-the-art multimedia systems, etc.); excellent library facilities; sports facilities, and other supporting facilities such as a book store, a health centre, and bank services.

Other reasons the respondents chose USM were parental advice, peer recommendation, proximity to home, enjoyment of Penang life, and reasonable fees. In this group of students, 25% listed parental advice as a highly important factor in their choice to study at USM. In contrast, peer recommendation is a very important factor for only 8% of the sample. Location was not a very important consideration for the majority of the students; only 8% of the students stated that their preference to live in Penang was a very important factor and only 16% of the sample responded that USM's proximity to their home was an extremely important consideration. Finally, the reasonable student fee was a very important criterion for 19% of the students.

CONCLUSIONS AND STRATEGIC IMPLICATIONS

This study highlighted several issues regarding students' choice of tertiary institutions in Malaysia. First, this study shows that a large majority (70%) of the students believe that higher education is needed to secure a lucrative job. The fact that 47% of the respondents perceive that USM has good links with job markets places USM in a favourable position in the eyes of many students. Efforts undertaken by USM that

enable students to achieve their career goals will have a strong influence on the preference of prospective students towards USM. One way to enhance USM's links with the labour market is to implement industrial training programmes rigorously for every undergraduate programme to prepare students for the job market. In addition, these programmes enable organisations to evaluate students during the training period and to identify those whom they wish to eventually hire as permanent staff once they complete their higher education. Establishment of the Division of Industry and Community Network in 2007 is also expected to improve USM's links with the market, as well as prospective employers, which will serve as a pull factor to attract students to USM. Such information ought to be highlighted in the university's website because the Internet and university websites are the source of information most frequently used by students to make their choice of tertiary education institution. Publicising information that relates to USM's uniqueness and strength is expected to draw students to this institution.

Another selling point for USM in its quest to attract students of high calibre is its status as the APEX university. In this study, 39% of the students regard the university's good reputation as an extremely important criterion for university selection, and 33% suggest that it is the most important factor upon which they based their choice. Hence, USM needs to ensure that it achieves its goals, which are outlined in the APEX university programme, including moving up the World University Rankings to become one of the top 50 universities in the world by 2020. By doing this, USM will be regarded as the best choice for the top students in this country.

Finally, students consider the availability of a course or programme that they wish to pursue as another extremely important consideration for choosing USM. This is because USM offers a broad range of undergraduate programmes and courses that students can choose from. However, it is necessary for USM to keep abreast with changes in the higher education arena, and the contemporary demands from the working world require review of programmes and courses. In other words, USM has to be engaged in strategic planning and designing of new programmes and courses that balance the diverse needs of students

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and the emerging needs of the educational and labour markets. For example, the School of Social Sciences in USM, which is the focus of this study, is planning in the near future to introduce two new programmes, a Bachelor of Social Work programme and a Bachelor of Economics programme. The two new programmes will include various courses in new areas of study that are emerging in these disciplines.

To conclude, USM has to focus on various factors in order to attract students of high quality to its undergraduate programmes. From this pool of high-calibre undergraduates, the university will be able to nurture students for post-graduate studies, which is the thrust of USM's higher education programme as a research university. In Malaysia's rapidly growing education sector, USM must transform itself into a world-class university so that it can attract the best students and produce the best graduates in the country.

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