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Title of paper: Fact or fiction: The information search behaviour of Taiwanese home and overseas students

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Track: Student choice and decision making in a global HE environment

Abstract

The HE decision-making process is like a “funnel” (Hamrick and Hossler, 1996). Many students enter at the top and a few come out at the bottom to attend a particular institution. But, what exactly goes on in the funnel and what information do prospective students use to help them choose their university?

All students are thought to use a wide variety of information sources from university provided prospectus and websites (Veloutsou *et al.*, 2005; Moogan and Baron, 2003) to parents, families, friends, teachers and career counselors (Christie *et al.*, 2004, Engel *et al.*, 1995 and Connor *et al.*, 1999). There is however disagreement as to which sources are used by postgraduates and which are considered to be the most reliable.

This study investigates the information search behaviour of Taiwanese postgraduate business students studying in Taiwan and in the UK, in order to compare and contrast their information search behaviour by context. A mixed method approach was adopted using focus groups, interviews, and observations. Template Analysis and MAXqda were used to analyze the data.

Based on the findings, a conceptual framework is presented to represent the stages of students’ decision-making and the external information sources students used.

Fact or fiction: The information search behaviour of Taiwanese home and overseas students

Introduction

All organisations need to understand how consumers choose their service offerings, the processes they go through in making a decision and the information they use to inform their choices. Unfortunately, much of what is known about the consumer decision-making process relates specifically to goods. Services are different. Indeed, not only does the decision-making process of services differ from that of goods, but the process can also differ from one service to the next.

Due to Government imposed restrictions on the number of UK and EU undergraduate students that universities can recruit, postgraduate students (and particularly those from non EU countries), are an attractive but fiercely competitive market for UK universities. In order to successfully compete in this market, Higher Education Institutions (HEIs) need to ensure that their marketing and recruitment strategies are continually developed so that they provide students with the right information at the right time. To facilitate this, they need to understand how postgraduate students make their HE decisions and what information sources they use at different stages of the HE decision-making process.

Classified as a service, Higher Education (HE) decision-making stands apart from many other services as it is an infrequent, expensive and therefore a high risk and high involvement decision from a student's perspective (Hossler *et al.*, 1999). This is especially true for overseas students studying abroad (Patterson *et al.*, 1998). Although previous studies have suggested what information sources are used by home-based students (e.g. Hossler *et al.*,

1999; Mazzarol and Soutar, 2002; Veloutsou *et al.*, 2005; Reay *et al.*, 2005) and some have also included overseas students (Binsardi and Ekwalugo, 2003; Gray *et al.* 2003), the majority concerned undergraduate (e.g. Christie *et al.*, 2004; Reay *et al.*, 2005; Brooks, 2004) as opposed to postgraduate students (notable exceptions are Ivy, 2008; Kallio, 1995; Webb and Allen, 1994). Little is therefore really known about the HE decision-making process that overseas postgraduate students go through and how these might differ from comparable home-based students.

This paper aims to contribute to our theoretical understanding of the decision making process by developing a conceptual framework to help explain the stages of the HE decision-making process for home and overseas students. Three research questions were posed:

- How are external information sources used by students at the different stages of HE decision-making process?
- In which stages of the HE decision-making process are students affected most by external information sources and why?
- How do home students and overseas students differ in the use of external information sources in the HE decision-making process?

Taiwan has been selected as the context for this study. Despite its importance in international HE, Taiwanese students have so far received little attention (Weng, 2000; Chen and Zimitat, 2006). However, in the past 25 years the number of Taiwanese students studying abroad has increased ten-fold from 3,000 to 33,000 per annum, with the UK being one of the most popular host countries (the Ministry of Education of Taiwan, 2007). Taiwan also provides a

single ethnic minority student group for both contexts, thereby limiting any differences in the decision making process between home and overseas students due to culture.

Literature Review

The consumer decision-making process

The consumer decision making models were originally developed during the 1960s and 1970s (see for example, Nicosia 1966, Howard and Sheth 1969 and Engel, Blackwell and Miniard 1995). Typically, they included five stages: need recognition; information search; alternative evaluation; purchase; and post-purchase evaluation (Loudon and Bitta, 1993; Hoyer and MacInnis, 1997; Engel *et al.*, 1995; Schiffman and Kanuk, 2004). Although widely used by marketers, these models have been criticised for their assumptions and generalisations. For example, none have proven to be empirically accurate and the assumption that consumers are rational is not always true (Crozier and McLean, 1997). In addition, the models do not fully explain decision-making for all product ranges and in all situations. For example, differences arising due to the frequency of purchase, product type, or the importance of the purchase, are not incorporated within the models (Erasmus *et al.*, 2001). Moreover, consumers do not always have perfect information upon which to base their decisions (Murray, 1991; Schiffman and Kanuk, 2004). The degree of information search increases when consumers face higher social, personal or financial risks in their purchases (Gray, 1991; Schiffman and Kanuk, 2004)) and information search is conducted at more than one point in the decision making process (Hwang *et al.*, 2002).

As the decision making models were developed within a goods context, their suitability for a service context has been questioned due to the characteristics of services. Indeed, the

intangible nature of services suggests a high level of risk in decision making as the quality attributes cannot be experienced in advance of purchase (Murray, 19991; Zeitaml *et al*, 2002, Ahmed *et al* 2002).

Despite these weaknesses, the models continue to provide a framework to study the consumer decision making process in various contexts, including the HE sector (Donaldson and McNicholas, 2004; Moogan and Baron, 2003; Brennan, 2001; Pimpa, 2003)).

HE Context

Although HE is a service (Chen and Zimitat, 2006; Patterson *et al.*, 1998; Cubillo *et al.*, 2006), it is characterised by a greater amount of interpersonal contact, complexity, divergence, and customisation (Patterson *et al.*, 1998) than other more generic services (i.e. hairdressers, eating out, or shopping for food). HE decision-making is closer to the decision-making for professional services, such as medical services, financial advisers, or accountants (Freiden and Goldsmith, 1989). For professional services, consumers are more willing to invest more energy to search for information on evaluation criteria and qualifications. Consumers also often rely more heavily on interpersonal information sources, such as personal recommendations (Hill and Neeley, 1998) as consumers perceive a higher risk when purchasing professional services as they are not only harder to evaluate but are also purchased infrequently and are not accompanied by warranties or guarantees (Freiden and Goldsmith, 1989).

As with professional services, HE decision-making is also a high involvement decision as HE services are infrequent and expensive purchases that most students make only once in their

life (Hossler *et al.*, 1999), and therefore the risks and costs of a wrong decision are high. Due to the high perceived risk in making HE choices, including social, personal and financial, students tend to seek confirmation from social networks (Brennan, 2001), and personal sources are one of the most used information sources (Franklin, 1995; Inoue, 1999; Clarke and Brown, 1998; Paulsen, 1990; Donaldson and McNicholas, 2004). Therefore, in comparison to generic services, when selecting HE services, a greater variety of information sources are used, information is processed more actively, and a longer time is invested by students.

The evaluation of service quality is difficult partly due to the meaning of service quality differing between individual customers (Ahmed *et al.*, 2002). Evaluation of HE services is particularly difficult as it varies from year to year, class to class, student to student, and lecturer to lecturer (Patterson *et al.*, 1998). In addition, service evaluation is usually impossible to determine when the service begins (Gronroos, 1997) as the HE service often begins long before the enrolment, starting when a potential student contacts the institution by e-mail or phone, requesting information about the offered programmes and the entry requirements. This initial contact made with the university could be the first service image evaluation available to prospective students (Cubillo *et al.*, 2006).

The decision making process for students choosing to study overseas is even more complex (Patterson *et al.*, 1998). Not only are there additional service aspects to consider, such as safety, cultural activities, cost, visa and entry requirements, university environment, and quality of life (Cubillo *et al.*, 2006), but when making these decisions, it is likely that prospective students are not in the host country, which makes the evaluation of programmes more difficult (Gray, 1991),

Decision-making process in a HE service context

The 5 stage models of consumer decision-making have been applied to studies in a HE setting (see for example, Donaldson and McNicholas, 2004; Moogan and Baron, 2003; Brennan, 2001; Pimpa, 2003), mainly as the basis of a conceptual framework to position the studies. For example, Donaldson and McNicholas (2004) used the 5 stage model to show the interrelationships between postgraduate students' HE decision-making and the marketing communications strategy of universities. Brennan (2001) expanded the model into 7 stages and included need arousal, search for information, set criteria for evaluation and evaluate alternatives, decision, choices, purchase, and post-purchase.

Alternative approaches have also been used by researchers within the fields of economics, psychology and sociology to explain HE consumer decision making. Generally, the economic models provide perspectives on how students formulate their final consideration sets and how they decide which university they will attend, but are based on the assumptions that prospective students are rational consumers who have perfect information and conduct careful cost-benefit analyses for their HE choices (Bishop, 1977; Chapman, 1984; Kotler and Fox, 1985)). Whereas in the sociological (status attainment) models the emphasis is on understanding the formation of educational aspirations, but taking into account the external influences, from the culture or family, rather than seeing students as active problem solvers (Sewell and Shah, 1978; Sewell *et al.*, 1969, Rever, 1973).

All the above HE models have their advantages and disadvantages in aiding our understanding of the HE choice process. It may however be argued that the combined models are more comprehensive as they combine concepts from both the status-attainment and

economic models (see for example Jackson 1982, Chapman 1984, and Hossler and Gallagher 1987). Indeed, Hossler and Gallagher (1987) have greatly influenced research on college choice. An example of this can be seen in the creation of the College Choice Influence Scale (CCIS) presented by Dixon and Martin (1991) which is often referred to throughout the literature (Basksh and Hoyt, 2001; Bradshaw *et al.*, 2001; Pope and Fermin, 2003; Pooch and Love, 2001).

The Hossler and Gallagher (1987) model offers a three-stage process: predisposition, search and choice stage. The predisposition stage includes making the decision to go to college, the search stage involves learning about and comparing institutions and the choice stage covers completing applications and actually choosing an institution for enrolment.

The main difference between the Hossler and Gallagher (1987) model and the original 5-stage decision making model is that in the former the search stage begins when the student starts to seek information about university opportunities and ends when the student has decided to apply to particular institutions, termed the “choice set” (consideration set). In the original consumer decision-making models information search was confined to one point between need recognition and alternative evaluation. This addresses a major criticism of the original decision-making models, as consumers’ information search might be conducted at more than one point in the decision making process (Hwang *et al.*, 2002).

Information Search

Information sources are categorised in a variety of ways by different authors (Engel *et al.*, 1995; Veloutsou *et al.*, 2005; Hoyer and MacInnis, 1997). For example, Veloutsou *et al.* (2005) took a university perspective and suggested *controllable* sources of information, such

as promotional materials from universities, like prospectuses, CD's and videos; *non-controllable* sources, such as friends, family, and other students; and *partly controllable and partly non-controllable* sources of information, such as information from the Internet or other media, including the websites from educational agents who assist British universities to recruit international students. However, the use of more traditional divisions of “marketing and non-marketing stimuli” and “impersonal and interpersonal” information sources (Engel *et al.*, 1995; Hoyer and MacInnis, 1997) can better avoid possible confusion caused by the potential grey areas when classifying information sources that are partly controllable or partly non-controllable by UK universities, so these classifications are adopted as the information category sources in this study.

The types of information sources that potential students might use are presented in Table 1. Information from alumni, student associations, and current students are seen as non-marketing stimuli. It could be argued that alumni bodies often have a certain level of contact with the university, and consequently might not always provide neutral information to potential students. However, as alumni are not paid by universities to promote the courses of universities, they are seen as non-marketing stimuli information sources in this study. On the other hand, promotional materials provided by universities, including prospectuses, CD's and DVD's, as well as university websites, are taken as marketing stimuli information sources in Table 1. Again, it could also be argued that university prospectuses and websites might contain much neutral information, like programme contents, coursework styles, or profiles of university, rather than commercial information only. However, as in this study, universities are considered as sellers and students (the potential consumers) as buyers, the information offered by universities is therefore recognised as a marketing stimuli information source. Finally, educational agents might arguably be seen as non-marketing rather than marketing stimuli information sources as well. Yet, educational agents are paid commission when they

successfully help students to enrol with the universities with whom they have contracts. Therefore, in this study, educational agents are seen as marketing stimuli.

Table 1 The four types of information sources in a HE context

	Impersonal source	Interpersonal source
Marketing (commercial) stimuli	Advertising Campus visits Open days Promotional materials (prospectuses, CD's and videos) Website of university Directory of courses	Educational agents University recruitment staff Education exhibitions
Non-marketing (non-commercial) stimuli	<i>General purpose media:</i> News Magazines The Internet	<i>Social others:</i> Family Friends Classmates Teachers Alumni Student association Current students of university

Source: amended from Veloutsou *et al.*, 2005, pg. 281; Engel *et al.*, 1995, pg. 189; Hoyer and MacInnis, 1997, pg. 386

The conceptual framework

From the literature discussed above, a conceptual framework has been developed for this study (Figure 1). The framework has been produced by combining and amending the five-stage model of consumer decision-making discussed earlier (Loudon and Bitta, 1993; Hoyer and MacInnis, 1997; Engel *et al.*, 1995; Schiffman and Kanuk, 2004), the Hossler and Gallagher model (1987) and the types of information sources shown in Table 1 (Veloutsou *et al.*, 2005; Engel *et al.*, 1995; Hoyer and MacInnis, 1997).

There are three main differences between the original decision-making models and the conceptual framework. First the five-stage decision-making process is extended to eight stages by expanding the alternative evaluation stage into three additional stages: decision (consideration set), choice (application), and accepted/unaccepted by a university. After alternative evaluation, students will make a decision based on the consideration set, which is a list of universities that they will apply to, if they meet the requirements as stipulated by these institutions. The choice (application) stage is the list of universities students actually apply to. Students might not apply to all the universities in their consideration set, or they might apply to universities that are not in the consideration set.

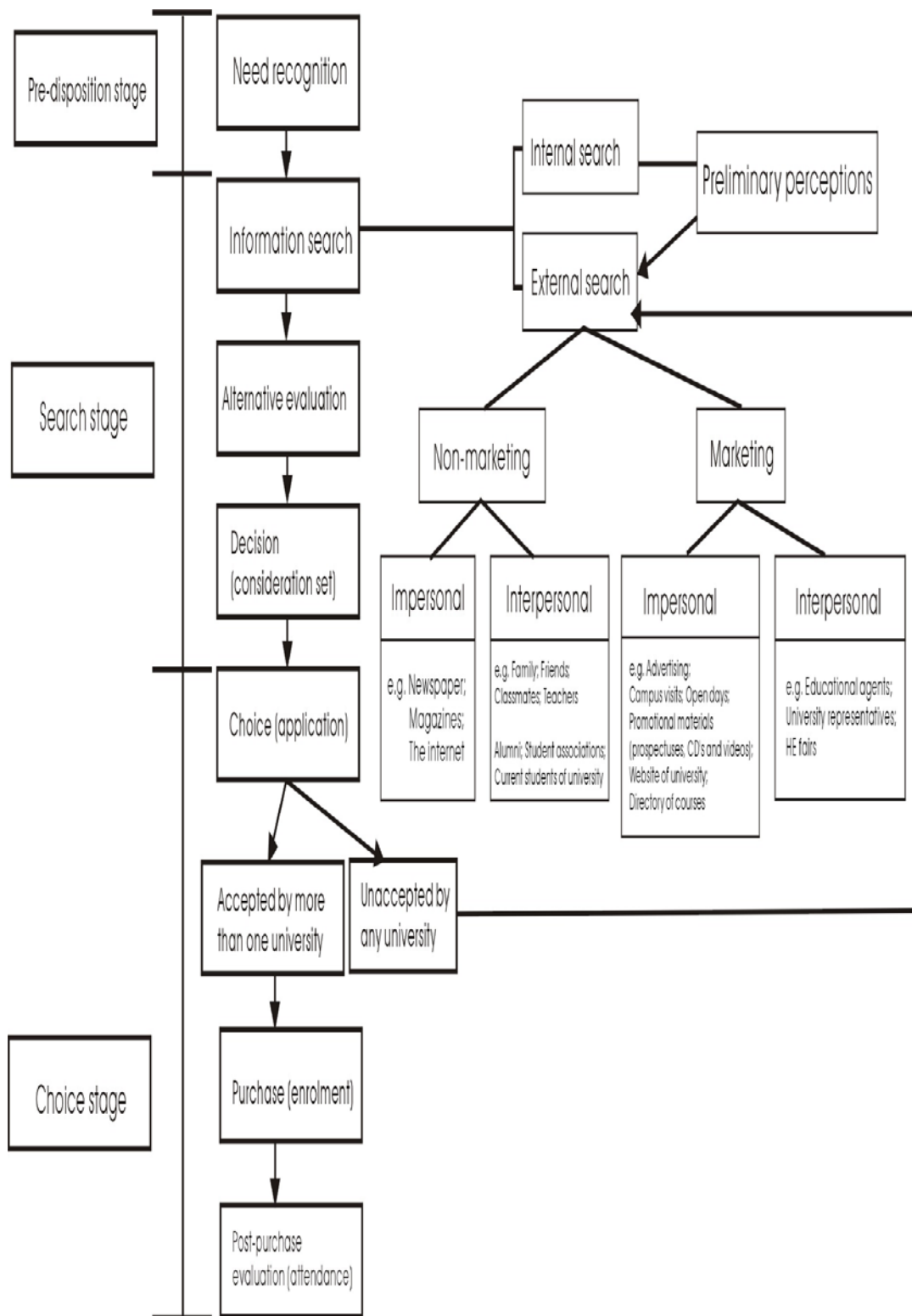
HE choices are unusual, because although students decide which universities or courses they would like to apply as consumers, students are also chosen by universities via comparisons with other applicants. This is not commonly seen in the purchase of other products or services, as in most cases, consumers buy what they choose. However, in HE choices, students are choosing universities and universities are choosing students hence the addition of the third new stage, accepted/unaccepted by a university.

Second, the three main stages identified by Hossler and Gallagher (1987) are used to divide the HE decision-making process into the three key stages, namely pre-disposition, search, and choice. Notably, the search stage now covers the information search and alternative evaluation stages as well as the decision (consideration set) stage. In addition, information search is also added to the accepted/unaccepted by a university as if a student is not accepted by a university (or is accepted by more than one university and needs to choose from the university offers), they will need to search for more external information to reform their consideration set.

Third, the information sources students might use in making their HE decisions are added and categorised as marketing/non-marketing and impersonal/interpersonal.

A similar model was used by Brennan (2001, pg.4) previously in a HE setting in Australia. However, the conceptual framework adopted in this paper offers more detail in the decision making stages and the types of information sources students use compared to the earlier Brennan model.

Figure 1 HE decision making conceptual framework



Source: adopted from Engel *et al.*, 1995, pg.1154; Hossler and Gallagher, 1987; Veloutsou *et al.*, 2005, pg. 281; Brennan, 2001, pg. 4)

Method

Previous studies investigating the HE decision-making process have generally employed either a positivist or post-positivist approach. These studies are unable to look behind the behaviour to answer the how and why of student decision-making behaviour. Therefore, a qualitative method was adopted to provide an in-depth understanding of the complex detail that explains students' thoughts and activities. It is recognized that the limitation of a qualitative approach is that generalization cannot be generated from the findings.

Data was collected using a mixed method approach with postgraduate business students and included 3 focus groups; and 30 in-depth interviews (current students, prospective students and alumni) conducted in the UK and Taiwan. In addition, 5 days of observations were conducted at an HE fair in Taiwan (2 days) and with three agencies in Taiwan (3 days). All interviews were semi-structured and lasted for approximately 1 hour. Protocols identified prior to the observation were used to guide the focus of the observations. All data was analysed using Template Analysis and the software package MAXqda.

Two groups of students were selected for this study, Taiwanese students studying Master's business programmes in Taiwan (the home based students identified as the TW Group) and Taiwanese students studying Master's business programmes in the United Kingdom (international students studying overseas identified as the UK Group). As both groups are Taiwanese students, the ethnic or cultural variation is largely non-existent, so if students were found to behave differently, it would indicate how home and overseas students differ in HE decision-making process.

Findings

Although students from both the TW and UK Groups were essentially making the same decision, i.e. deciding which university/course to attend, as the students held different levels of internal information, their external information searching behaviour and decision making process differed markedly.

UK Group

The majority of students in the UK Group held limited and generic internal information gained from 'experienced' friends who had either worked or studied in the UK. This information centred on the UK as a country rather than the higher education system and included, for example, knowledge about London, the people, the weather and the cost of living. As a result the UK Group undertook more external information searching prior to making an application compared to the TW Group.

Information search

During their initial information search the UK Group primarily used two information sources to provide them with further information about UK universities: HE fairs and educational agents.

Students generally attended HE fairs at the beginning of their HE decision-making process in order to browse and collect a wide range of information. Although prospective students spoke to university staff and current students/alumni at the fairs, they were most interested in talking to students as opposed to university staff representatives. The most common questions asked at the fairs centred on teaching and learning, living in the UK, or future career enhancement. For instance,

“...many students asked whether the courses at University D are more practical or theory-based...Students also asked about the specialist areas of the teachers, and whether teachers were more from a business or academic background. Also, potential students wanted to know current students’ backgrounds, such as their nationalities”
(HE observation)

However, the key source of information for the majority of the UK Group at this stage was the educational agent. Students tended to select just one agent as their central information provider. Agents were used to guide and direct the UK university application process. They also influenced the students in terms of the choice criteria they suggested the students used and the list of universities they should consider, this subsequently affected students’ consideration sets.

Alternative Evaluation (set choice criteria to evaluate alternatives)

The UK Group mainly consulted agents and Hello UK (a BBS, bulletin board system, website operated voluntarily by Taiwanese students) during the alternative evaluation stage to identify what choice criteria to use for evaluating UK universities.

The most common choice criteria used by the UK Group included the type of programmes, location of university, and ranking. In evaluating programmes and location, factual information provided by agents, HE fairs, and UK universities (prospectus and websites) was used, while information on ranking was often obtained from agents and league tables. League tables were accessed by students from a web link from Hello UK directly to the websites of the Financial Time and Guardian.

The agents also encouraged the student's to use their own personal information as choice criteria to help them identify a suggested list of suitable universities. This information included the student's GPA, IELTS score, the type of HEIs they had studied at undergraduate level, and work experiences (such as the type of job and the length of work experiences).

They [the agents] looked at my work experiences and grades from university, some personal background,, to see whether I was suitable for the five starred RAE schools. My agent thought RAE 4 fitted me better...and also based on my conditions, like to get cheaper tuition costs, they gave me a list of suggested universities [for application] (Male, aged 30).

Educational agents therefore influenced the stage of alternative evaluation for the UK Group.

They [agent] selected the universities for me initially and I chose from the list to save time. I could not compare the 120 universities myself. It would be too time-consuming. (Male, aged 26).

This finding echoes previous research (Mazzarol and Soutar, 2002; Pimpa, 2003) that suggests that agents do affect student' HE choices as they serve as information providers. Most students took away the lists provided by agents and searched for more external information to narrow down the list. Nearly all respondents who used agents only applied to the universities that were included on the lists.

In addition to the educational agents, students also used Hello UK to identify choice criteria. Students that had used Hello UK commented that they had learnt from other students “what to pay attention to when selecting universities”, while others had identified additional choice criteria that they had initially neglected, such as the geographical location of a university.

I preferred to choose universities in the South and in the middle of England... because people in Hello UK said other places [in the UK] are very cold. I'm afraid of cold weather, so I didn't want to go [to the North]. I didn't know at that time that inside the buildings in the UK, there are heating systems (Female, aged 31).

Hello UK was found to be a particularly influential source of information.

I trust it [Hello UK] very much, because it's an open forum run by a non-commercial organization... I feel more familiar, friendly with students from my country, so they shouldn't want to cheat me...we share the same cultural background (Female, aged 27).

Decision (consideration set)

In deciding a consideration set, the majority of students used the agents' suggested list as a starting point and undertook a more detailed comparison to narrow this down to a short list of 5-6 universities. The information sources used at this stage included university prospectuses and websites, league tables and Hello UK.

Although the university prospectuses and websites were used by the UK Group in both the alternative evaluation and decision stage, these sources were primarily used for factual information, for example, for course, unit and tuition cost information.

I saw the prospectuses from seven potential universities...I wanted to know more about course design, like what the core or optional modules are...I would try to compare the differences between the modules of each university. (Female, aged 31).

Students recognized that the university prospectus and websites were promotional items and presented the university in a positive light (as identified by Donaldson and McNicholas, 2004) and were sceptical about the information they contained

...I only used their information about the curriculum and tuition fees. Fixed facts. I think universities still might give me brighter images about themselves, so I prefer to ask experienced students (Female, aged 28).

Perhaps surprisingly, given their scepticism, the prospectus and website were also used to gain more general information about the university that would otherwise have been obtained from a campus visit. For example, for details on the campus environment, students looked at photographs of the general appearance of the university, the campus and facilities (particularly the library), and the local city/town environment.

I want to see the campus environment, but it's strange that not many university websites have many photos of the campus. I want to know the size of the campus, how it looks etc. Also, the city environment, the convenience of living, and how far it is from London... (Male, aged 27).

However, students did not take this information at face value; they tried 'to read between the lines'. For example, if a campus photograph was not included in the prospectus, this was interpreted as that university not having a campus or having a poor campus.

League tables were seen as a quick and easy way to reduce the number of universities compared to other searching activity, which would produce too much information. This is in

contrast to previous studies (e.g. Veloutsou et al 2005), which found league tables to be perceived as less reliable sources of information.

There is too much information, so if any information is easier to understand and worth trusting, you tend to believe it. When you don't know the universities, ranking [from league tables] is the most straightforward way.The ranking is for foreigners to use because we don't know [British] universities (Male, aged 27).

League tables were viewed as trustworthy, despite almost all students being unaware of what ranking elements were covered in each of the different tables. Several respondents believed that by using league tables, many criteria were automatically included in the rankings, such as evaluations of university facilities and campuses, teacher and student ratio or course design, how well-known the university is, or even in getting more job opportunities after graduation

A lot of the times, students will look at just a general ranking for a school and that might not be indicative of their intended courses. They might be going for very highly ranked courses in a poor university, and there might be some very bad courses in a very highly ranked university. (Agent interviews, Agency G).

Finally, Hello UK was also widely used by the UK Group to make their choice of university because current students/alumni who had studied in the UK were seen as more qualified to advise them about the performances of British universities.

I initially used ranking to find the first 30 universities for comparison, from an original list of over 100 universities. I then went to the Taiwanese student association of each university in Hello UK, to see what current students said about that university..... I wanted to know about the interactions between classmates..... I think [current] students' experiences are important because they are there [in the UK] (Female, aged 26).

As Hello UK is a BBS site, respondents of the UK Group either raised their queries by posting messages for current students to answer them, or browsed messages posted by others to get general ideas regarding studying in the UK. Keyword searches were also used by some respondents for finding specific information. The majority of interviewees obtained study and ranking information from the current students/alumni via Hello UK.

Choice (application)

Although Hossler *et al.*, (1989) suggests that students' consideration sets might be slightly different from the list of institutions to which they actually apply; in this study, the UK Group (with the exception of a few participants who were influenced by situational factors) had essentially the same list for their consideration sets and application lists.

Accepted/rejected by universities

Following application, almost all students in the study received more than one university offer, moving them into the purchase (enrolment) stage. The one student that was unsuccessful (his course was cancelled due to low numbers) subsequently applied late to two other universities. However, this change was due to situational factors and not external information sources influencing him. Hence, it can be said that influential information sources affected the UK Group in their consideration sets or enrolment choices, but not on their application lists.

Purchase (enrolment)

Hello UK was found to be key in the purchase decision. Students often selected two preferred universities from those that they had received offers from, and then went to the discussion boards of those preferred universities within Hello UK to ask current students' for their comments and feedback on their programme. Those comments played a crucial role in directing which university the student opt to for enrolment choice.

I compared the pre-sessional courses of University B and University D, and I contacted the presidents of Taiwanese student society of the two universities through Hello UK. The president of University D said it's easy to graduate from University D [laughing]. Also the president of University B said it's only the second year for the marketing course at University B, so I didn't want to be there for their experiment. New courses might have new or young teachers, which affects the teaching quality. It's a risk (Male, aged 26).

I was thinking about going to University L, because its ranking is better than University C...When comparing the two universities, I used students' comments in Hello UK. I heard people said there's less sunshine in Liverpool, and I don't want to get depression because of that, so I chose University C. I said to myself, ten something ranking [University L] and twenty something ranking [of University C] were similar, because it's out of tenth [in the ranking] anyway (Female, aged 26).

The Taiwan Group

Information search

In contrast to the UK Group, the TW Group held rich internal information which they had gained from the time they chose their own undergraduates courses in Taiwan four years

earlier. In addition they also had absorbed a lot of information from fellow students, teachers, friends and family about other universities and courses in Taiwan. Many respondents in the TW Group already had the names of several universities that they would apply to in their head:

Everyone has a list in their minds based on what they heard from others during their four years of study ... we all have our own impression on universities already' Yi)

As a result the majority of students in the TW Group engaged in limited external search activity prior to the acceptance stage.

Alternative evaluation (set choice criteria to evaluate alternatives)

The TW Group had clear ideas on what choice criteria to use for alternative evaluations from the internal information they held and from speaking to reference groups, including experience friends and teachers. The main choice criteria for the TW Group was the type of programme, the subjects required for the entrance exam, the location of the university, and personal academic strengths and weakness. Therefore, the information needed for the alternative evaluation stage was factual, rather than learning about what choice criteria to use (as with the UK Group).

Prior to and during the alternative evaluation stage, the TW Group engaged in minimal external information search activity. Although they did receive university information packs (including a prospectus) and accessed university websites these sources were typically used to help them prepare and sit the Masters entrance exam.

“I didn’t feel I needed much information (from the packs) when deciding where to take Master’s exams. I didn’t use any other information really, except the exam application forms” (Female, aged 23).

TW students also attended cram schools (commercial schools that offer intensive preparation courses for students planning to take their Master’s entrance exams) and had the chance to attend university presentations and ask questions of the current students, this did not however affect the alternative evaluation of the TW Group, who had already decided the exam subjects that they would take.

I don’t need to know very much..... I just needed to get myself accepted first, so I would have the chance to choose where to go. Even though I asked some senior students questions [in those presentations], I also asked things regarding exam preparations, and not much about their universities (Male, aged 23).

Decision (consideration set)

The TW Group mainly used internal information, reference groups and the university lists from the cram school (of all available programmes) to decide their consideration set. Other influences, which operated at a much lower level, included information from BBS and Taiwanese universities.

Reference groups comprised respondents’ teachers (e.g. from previous universities and cram schools), friends (who were current Master’s students) and peers (who were preparing for their masters exam). This supports previous studies (i.e., Chalmers, 2001; Christie *et al.*, 2004; Pimpa, 2003), that found that students’ peers affected their HE choices. The TW Group thought that their peers understood their personal situation and so their suggestions were more useful.

“My classmates [were the most influential], because we have similar positions, and also they know my problems better, so I would accept their suggestions more...” (Male, aged 22),

Experienced friends affected the choice criteria the students used to make their decision and how they evaluated the performance of different universities to form consideration sets. For example, one student who intended only to apply to private universities (which are seen as less prestigious than public universities in Taiwan) decided to apply to public universities after speaking to a friend:

I didn't want to apply to any public universities in the first place. I thought I only prepared [for the Master's entrance exam] for 6 months, how could I be accepted [by public universities]? Also, public universities normally test English. My English is terrible. However I have friends who studied at Taiwan University, and they suggested I apply to public universities as well. They said my maths is good, and although my English isn't good, I still have a chance to get into public universities (Male, aged 24).

The TW Group tended to be more proactive in seeking information from friends, asking them questions. This was in contrast to the approach they used with their teachers, which was more passive, they received comments on the different universities in class rather than in direct face-to-face interactions, this information was nevertheless influential.

Teachers at the cram school would comment on the Master's courses when they were teaching us the exam questions from that university. I couldn't remember exactly what they said, but I trusted the information from them, and if they said that university has a good studying atmosphere, I would really think about applying there (Female, aged 22).

Choice (application)

No information sources were found to influence respondents' application lists as the TW Group decided the consideration sets via internal and external searching, and when consideration sets were decided, respondents would then apply to those universities in their consideration sets.

Purchase (enrolment)

When the respondents of the TW Group were accepted by more than one university, (as with the UK Group) they tended to choose two universities themselves and then compared the universities with more external information from current students either directly or via BBS.

I especially asked senior students at University A and they suggested to me to come to University B. They said the students here [at University B] have higher academic performance...you can see this from the acceptance list. People who were accepted by University A were often only accepted by that university alone. But people who were accepted by University B were normally accepted by more than one university. It means their [academic] abilities were higher (Male, aged 24).

This advice had a strong influence on the students' enrolment choices, especially when they were struggling between two possible choices.

Although BBS was extensively used in this stage, it was not as influential as the reference groups. The TW Group had greater trust in the people they knew personally. However, when no information was available from their personal contacts, information from BBS was used.

I would prefer to listen to as many views as possible, because you would know what people think about the universities. If everyone says that university is okay, this means it's more likely to be the general views people have on that university (Male, aged 24).

A revised conceptual framework

The revised conceptual framework (Figure 2) has been amended from the original conceptual framework (Figure 1) as follows:

First, the external information sources used by interviewees in this study differed slightly from previous studies (Veloutsou *et al.*, 2005; Brennan, 2001), as league tables and cram schools were also used by the Taiwanese students in this study. Differences in information sources are, of course, likely to occur over time and by context. In this case, the former reflects the growth in popularity of league tables as a decision making tool for students, whereas cram schools are a fairly localized source of information, found only in those Asian countries with a highly competitive educational sector such as Taiwan, Japan and Korea. This study also identified the increasing influence of the Internet, specifically BBS, in students' HE choices. BBS, league tables and cram schools have therefore been added to the impersonal non-marketing sources of external information in the framework.

Marked differences in the information sources used by the two groups, home and overseas students, were also identified. In Figure 2, the sources highlighted in black were used by both the TW and the UK Groups (i.e. BBS and website of universities), sources underlined were used by the TW Group only (cram schools and reference groups) and the sources that were not marked were used by the UK Group only (leagues tables, university prospectus, agents, HE fairs and university representatives). The main reason for the difference in the type and number of sources used was the amount of internal information held at the start of the decision-making process. The TW Group had rich internal information and strong preliminary perceptions and therefore required less external information from the marketing sources and have more non-marketing interpersonal sources such as reference groups available to inform their HE choices. By comparison the UK Group held very limited internal information and as their reference groups also had limited information and experience of UK universities, they made greater use of the university provided, marketing sources of

information. As internal information played such an important role in determining the level of external information searching, a second change has been made to the framework to show internal information searching as a separate stage to external information search.

Previous studies (e.g. Hwang *et al.*, 2002) have identified that information search does not take place at one specific point within the decision-making process, but is involved in other stages. This study found external search behaviour took place at the decision and purchase (pre-enrolment) stages for both the UK and TW Group, while the main difference between both groups are that TW Group had rich internal information and preliminary perceptions, which reduced their use of external information sources at the stage of alternative evaluation. On the other hand, the UK Group relied on external information sources, such as agents, heavily to enable them to identify the differences between universities. Notably the TW Group were found to undertake external information searching not only when they were rejected by all universities but also to help them to choose between offers when they received more than one. The conceptual framework therefore has a third amendment to reflect this, external search being added to the alternative evaluation, decision and purchase (pre-enrolment) stages. Although external searching behaviour at the purchase stage is unusual, this situation is not unique in the service sector and parallels can be drawn with, for example, the financial services sector where applicants for personal loans, insurance etc may be rejected after application.

Finally, the categories identified by Hossler and Gallagher (1987) have been amended to reflect the external information searching activity that continues to occur in the later stages of the model. Hossler and Gallagher's search stage now extends from the internal search stage through to the purchase and their choice stage now moves to purchase and beyond, when the final purchase is made.

Figure 2: HE decision making revised conceptual framework

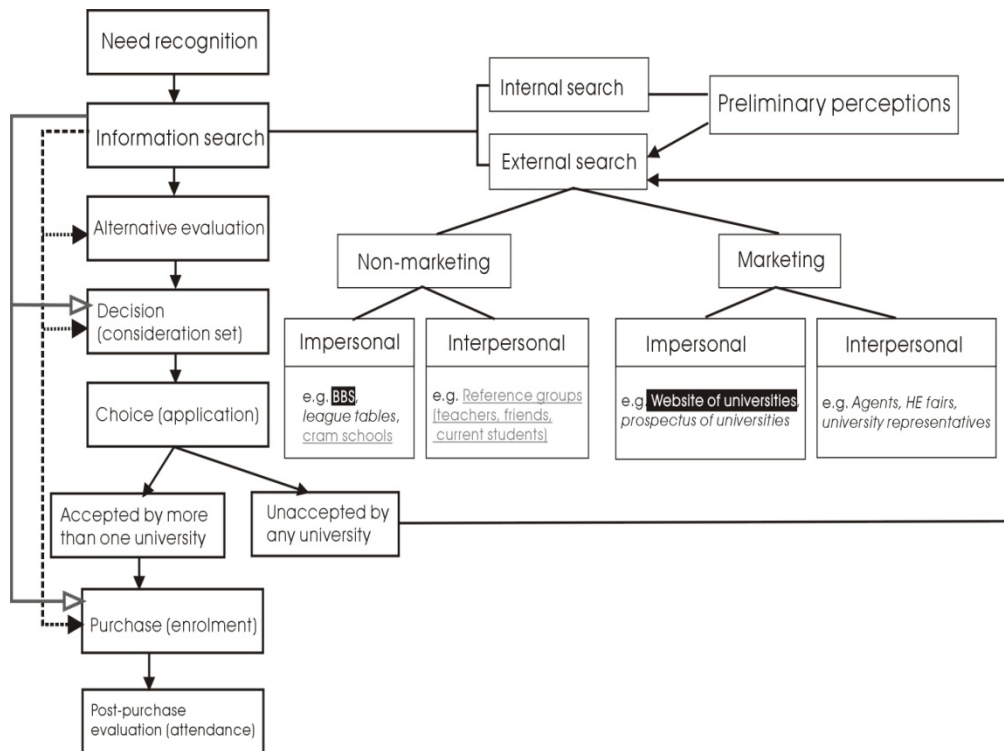


Figure 2: HE decision making revised conceptual framework

Conclusion

Although this study has been conducted in the context of Taiwan, it nonetheless has relevance for other HE and service industries. The findings confirm that the existing consumer purchasing behaviour models, although not without their critics, do largely explain the decision making process in the HE sector and in an eastern culture, Taiwan. However, most importantly the findings reinforce the need for marketers to consider not only the sector in which the consumer behaviour is being examined but also the specific context. In this case marked differences were found between the decision-making process of Taiwanese students

choosing to study at home and those choosing to study overseas. In addition, despite internal search being generally ignored in the past (Peterson and Merino, 2003), the amount and quality of internal information held by students in this study was found to be key to subsequent searching behaviour. More research is required in this area to identify how students gain internal information and how HEIs can influence what is held, particularly for overseas students where internal information is sparse.

The findings from this study also provide further evidence to support the reoccurring external search behaviour as this activity was found to take place after the choice stage and continue to the enrolment stage. From a HEI's perspective, this research also provides guidance as to what information they should provide to students and what sources they should use at the different stages of the students decision making process when external information searching is taking place. For example, in the case of overseas students, the educational agent plays a key role from an early stage in the decision making process by providing university lists and contributing to the choice criteria. This study therefore reinforces the need for UK universities to develop good relationships with overseas agents. In addition, as marketing sources, such as university websites and prospectuses, are used by students essentially for factual information then this information needs to be clearly provided to overseas students.

This study found that within all external information sources, only BBS and website of universities are used by both the TW and the UK Group. This indicates that in order to increase the influences universities have on students' HE choices, universities might need to pay more attentions to students' use of online information sources, including online non-marketing sources (such as BBS) and online marketing information sources (such as website of universities), Future research can look into the impact of the online information sources on students' HE choices, suggesting how online information sources can be better utilised by universities in recruiting both home-based and overseas students.

As this study was qualitative in order to provide an in-depth understanding of students HE decision making, it is recommended that the further empirical work is undertaken to test the revised conceptual framework and in particular to examine the use and influence of the different information sources in each of the decision making stages.