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The Factors Influencing the College Choice of the Leaving Certificate Cohort

Patrick O Sullivan
Department of Business and Social Studies, Institute of Technology, Tralee, Kerry, Ireland

Department of Business and Social Studies

Institute of Technology, Tralee

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A Thesis presented for the Master of Arts

By

Patrick O'Sullivan BA (ISM)

Supervisor – Ms. Elizabeth McEntee

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FACTORS THAT INFLUENCE THE COLLEGE CHOICE OF THE LEAVING CERTIFICATE COHORT

This thesis examines the factors that influence the college choice and decision making behaviour adopted by Leaving Certificate Students choosing third level colleges in tertiary education. It attempts to understand the decision making process and associated influences that affect students when considering a third level college. The position adopted for this study is that of a consumer behaviour perspective.

Whether or not the potential students operate a systematic process, logically thinking throughout each step, is worthy of research. Secondary research confirms the many variables influencing the decision-making process, particularly in the USA and UK. However, in-depth knowledge regarding the criteria Irish students employ is limited. Therefore while existing college-choice models drawn from elsewhere provide a useful foundation they are not sufficient to answer the key question:
How do students choose third level institutions in Ireland?

Hence, research was carried out on 200 Sixth Year Students from secondary schools in Kerry, Cork, Limerick, Clare, Tipperary and Waterford. The research was done after the students had completed their CAO College Applications.

The main purpose of this thesis is to contribute to the information base available to decision makers in relation to participation in higher education in Ireland.

CHAPTER ONE

INTRODUCTION

INTRODUCTION

Academic research undertaken into the *factors that influence the college choice of students* have focused mainly on the USA, UK and other western higher education markets. Research in Ireland has focused on the pattern of participation in higher education, the social and educational backgrounds of entrants and access and equity in higher education.

This research is concerned with the factors influencing the college choice of Leaving Certificate Students (from a consumer behaviour perspective), because of the increasing importance of higher education in Ireland. An important aspect of social change in recent decades has been the increase in enrolments in higher education.

"A historic shift is occurring in the second half of the 20th century: tertiary education is replacing secondary education as the focal point of access, selection, and entry to rewarding careers for the majority of young people." (OECD, 1999a, page 20)

At an international level, there has been increased interest in the decision making process of students and the factors that they consider when making higher education choices. Governments want to increase and widen participation, so therefore they need to be aware of the factors that influence the college choices of students. In the Irish context "at a wider level, the capacity and quality of our higher education system has never been more important to Ireland's social, cultural and economic well-being. The core value of higher education – indeed the core value of the educational system as a whole – is to provide individuals with the opportunity for personal development, fulfilment and improved quality of life." (Hanafin, 2005)

At a local level, individual institutions are keen to find out how to market their courses attract the maximum number of students.

1.1. STATEMENT AND BACKGROUND OF THE PROBLEM

The decision making behaviour of Leaving Certificate Students (acting as consumers) engaged in the college choice process is an extensive and complex problem solving process, given the time spent and the intricacy and the variety of the choices involved (Sheth, Mittal & Newman, 1999). Bloomer and Hodkinson (1997, page 46) characterize student decision making, as "a complex nexus in which habitus, personal identity, life history, social and cultural contexts, actions and learning are inter-related."

Consequently, a consumer (student) who undergoes an extensive decision making process is considered to be highly *involved* in the decision (Kapferer & Laurent, 1993; Gray, 1991) and therefore, searches extensively for information (Sheth et al. 1999).

Higher education is purchased, consumed and evaluated in the form of a *service*. The production, consumption and evaluation of services differ from those of goods (Zeithaml, Parasuraman and Berry, 1990).

First, services are mostly intangible. That is, they are not physical objects; rather they are performances and experiences. Second, they are heterogeneous. In other words, they differ considerably from producer to producer. Third, they are inseparable. Purchase and consumption of services occur at the same time. Therefore, the purchase process of services is likely to be different from the purchase process of durable goods. For example, the consumer, in reality, purchases and consumes most services at different locations than where s/he lives (Sirakaya, McClelland and Uysal, 1996). The decision making process that is used to purchase higher education takes much longer than for many other products. Also, the consumer (student) deals with a high-perceived risk because of high personal investment of time and effort (Murray, 1991). Consequently, the consumer is likely to be more involved in information search for the *product*. Students are likely to plan the *purchase* due to the high perceived risk involved in the purchase.

Student decision making about third level education choices has attracted a great deal of research. As a result of the influence of economic rationalism, students have been constructed as *autonomous choosers* (Peters and Marshall, 1996) who make decisions about whether to enrol in third level education, which course to enrol in and which institution to attend. However, given the current context, it is comprehensible that there has been augmented interest in the processes students' use and the factors they consider when making decisions.

Davies (2003, page 15) proposed that decisions result from a "complex relationship between different factors…" Tyler (1998) outlines some of these factors: changing social structures, less formal and lasting relationships, changing employment patterns and changing skill requirements within existing careers. Maxwell, Cooper and Biggs (2000) suggest that there is no single factor at work. There are always combinations of factors that influence the final decision.

Hossler and Gallagher (1987) have proposed decision making models based on a student's life, contains different decision making variables, and that recognises that choice is part of the decision making process. This model has three stages. The first, the *predisposition stage*, considers the family background, parental disposition to tertiary education, degree of self-belief and nature of the school attended. The second, the *search stage*, occurs when the student is searching out post-school alternatives based on variables such as career aspirations, interest in a field of study, academic achievement, access to information and contact with third level institutions. At the third stage, *choices* to pursue specific courses at certain institutions are made. These are based on whether admission is achieved, whether the right courses in a preferred field of study are available, and whether costs and rewards are in balance.

Chapman's (1981) model includes various aspects put forward in the field of consumer behaviour. Chapman proposes that essential elements in the college choice model are:
Student characteristics, the influence of institutional attributes on the decision to attend and communication efforts of the institutions in attracting students.

A number of studies have found that the decision making process starts early (Stage & Hossler, 1989; Cabrera & La Nasa, 2000; Payne, 2003).

Decision making is influenced by information search. This leads to the ability of the consumer to establish criteria by which they may evaluate alternatives. The criteria for selecting an institution are the factors or variables a students' considers to be important. These variables will be of varying importance to the student. It is therefore important to identify the factors that are likely to influence students' college choice and their information search behavior prior to making this choice. Identification of those factors may enable marketers to develop better communication and targeting strategies.

Criteria that have been found to be relevant to college choice are:

- Attaining the necessary exam results to get a place on a course
- Availability of financial aid, grants and student welfare programs
- Costs
- Courses offered
- Easy access to shopping
- Educational facilities
- Extra curricular activities
- Familiarity with the college
- Image or reputation
- Interested in the course
- Job placement opportunities and the ability to get a good job on graduation
- Location
- Non-academic facilities
- Opportunities to meet other people and socialise
- Relevance of the course to you chosen career
- Size of the campus and the college
- Type of qualification(s)

Research has shown that the most important information sources are interpersonal. Interpersonal information is most effective when constantly exchanged by students, families, schools and third level institutions as active partners in the decision making process. Numerous authors have found parents and families to be important (Brooks, 2004; Dahl, 1982;

Hanson & Litten, 1982; Kallio, 1995; Stage and Hossler 1989; Foskett and Hesketh 1997; Furlong's 1993; Kelly 1989). Authors have found career counsellors to be an important influence also (Kidd & Wardman, 1999; Macrae, Maguire and Ball, 1996; Wardman, 1999).

Research has also shown that friends and peers also play a major function in decision making about college, affecting aspirations during compulsory schooling (Hemsley-Brown, 1996; Macrae et al., 1996) and during later stages of decision making (Moogan, Baron & Harris, 1999).

Students use information from promotional sources. These sources typically provide a description of product attributes or service benefits (Beales, Mazis, Salop & Staelin, 1981).

1.2. THEORETICAL FRAMEWORK

This thesis incorporates the decision making and information search process of Leaving Certificate Students choosing third level courses in Ireland. The research is based around the first three stages of the five-stage Consumer Decision making Process, as defined by Sheth, Mittal and Newman (1999) in Figure 1-1, and Schiffman and Kanuk (2000) in Figure 1-2 next page.

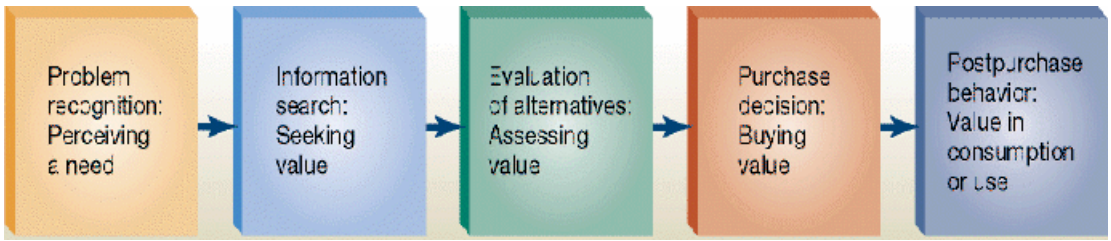

Figure 1-1: FIVE-STAGE MODEL OF THE BUYING PROCESS
Sheth, Mittal & Newman, (1999)

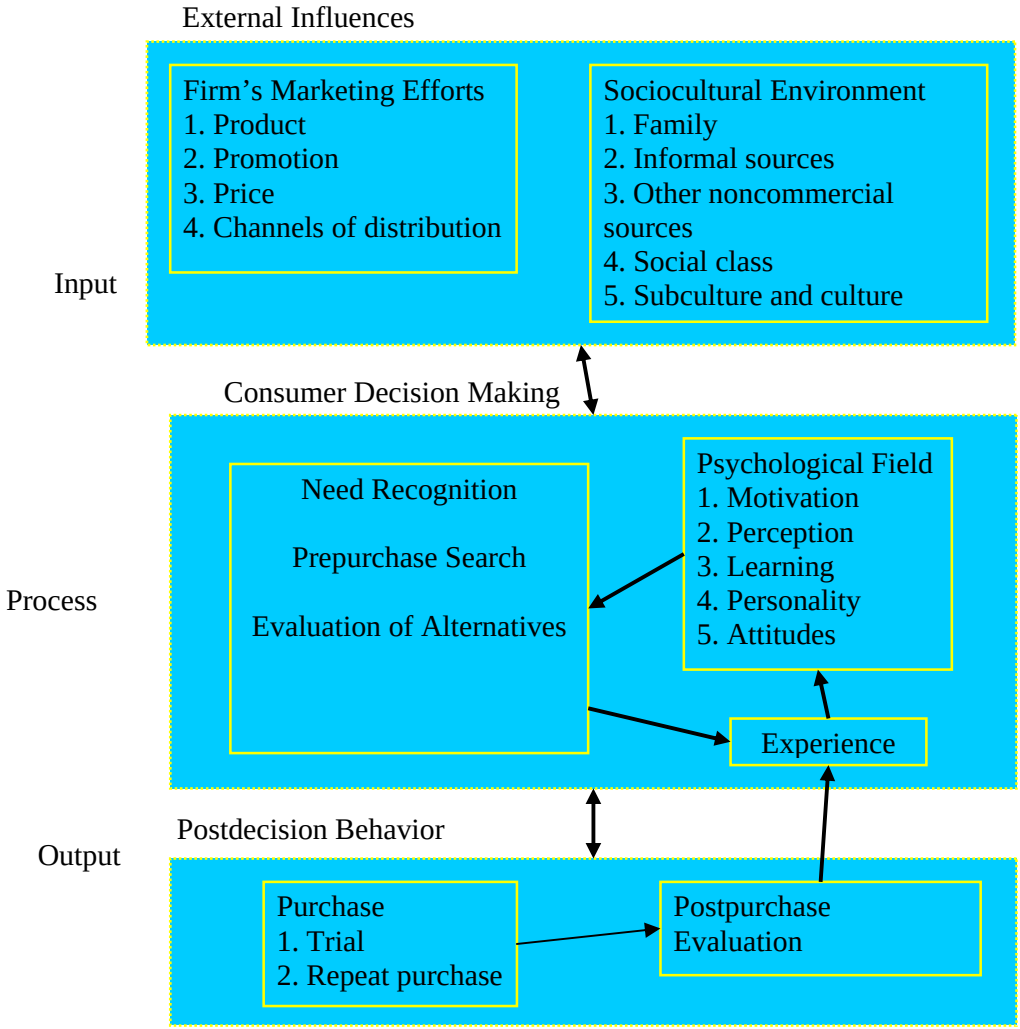

Figure 1-2: A SIMPLE MODEL OF CONSUMER DECISION MAKING
Schiffman & Kanuk, (2000)

The theory is that consumers go through a five-step decision making process: *problem recognition – information search – alternative evaluation – purchase – post-purchase evaluation.* (Sheth et al 1999). It proposes that consumers follow a complex decision making process when choosing between purchase alternatives and can be used to inform college marketing strategies. This research focuses on stages one, two and three of the process. The second stage of the consumer decision making process, *information search*, is an integral part of consumer decision making because the consumer wants to reduce uncertainty and perceived risk. Understanding this information search behaviour is crucial at a micro level for marketing

managers in designing effective communication campaigns "because it represents the first stage at which marketing can provide information and, therefore, influence consumers' decisions." (McColl-Kennedy and Fetter 1999, page 242)

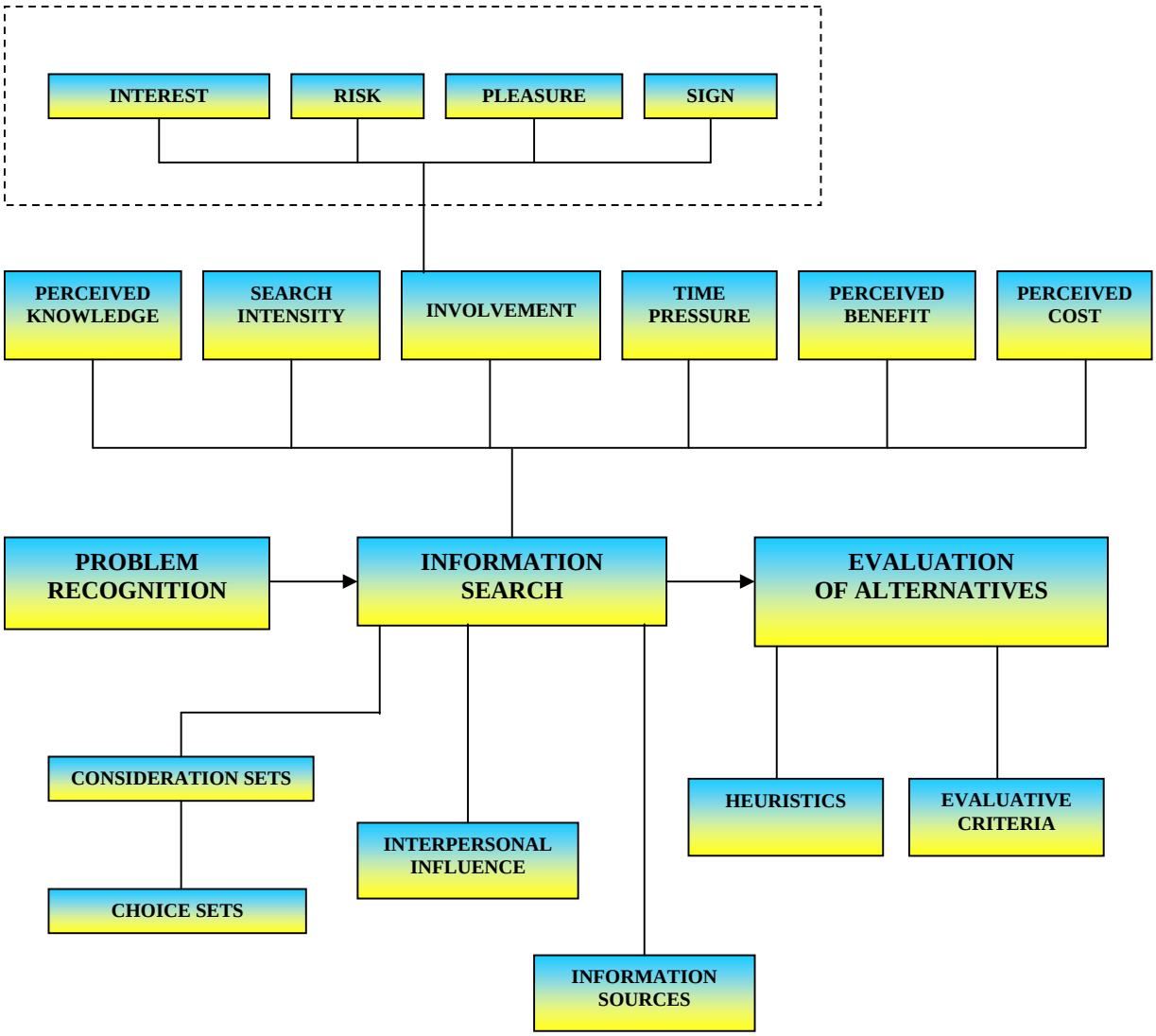

Figure 1-3: THEORETICAL FRAMEWORK

Figure 1-3 represents the theoretical framework developed for this study. The framework is adapted from and based around the first three stages of the Five Stage Model of the Buying Process proposed by Sheth et al. (1999) in Figure 1-1 page 5 and Schiffman and Kanuk (2000) in Figure 1-2 on page 6. The framework illustrates the various relationships between the variables that are examined by the research questions.

1.3. RESEARCH QUESTION

The specific research question that this study aims to answer is: *what are the factors that influence the college choice of Leaving Certificate Students?* The question is approached from a consumer behaviour perspective. The broad paradigm that encompasses the research question is students' problem recognition, information search behaviour and evaluation of alternatives. More specifically, the boundary for this study is the influences of perceived knowledge; students' involvement with the product; the perceived benefits and costs; time pressure and search intensity; the interpersonal influence and information sources used, on information search behavior; and the heuristics and criteria used by students' during evaluation of alternatives.

1.4. HYPOTHESES

The following is a listing of the hypotheses to be tested in this study.

1: Do Students' have high levels of involvement with regards to the college choice decision making process?

2: What is the relationship between students' perceived risk and involvement?

3: What is the relationship between students' involvement and their intensity of search for information?

4: What is the relationship between the intensity of search for information and the students' perceived benefits of information search for college information**?**

5: What is the relationship between students' perceived risk and their intensity of search for information?

6: What is the relationship between students' search intensity and their perceived knowledge?

7: What is the relationship between students' perceived risk and perceived benefit of information search?

8: What is the relationship between students' involvement and their perceived knowledge?

9: What is the relationship between students' knowledge and perceived risk?

10: What is the relationship between students' search intensity and perceived cost?

11: What is the relationship between students' time pressure to make a decision and their involvement?

12: What is the relationship between students' time pressure and search intensity?

13: Are all factors of equal importance to students' when choosing a college?

14: Are students susceptible to interpersonal influence?

15: Is all the information received from the various sources of equal use to students when choosing a college?

16: Is all the advice received from interpersonal sources of equal importance to students when choosing a college?

17: Do students use more interpersonal sources of information than non-personal sources of information?

18: What heuristics do students use and what if any is the relationship between them?

19: What is the relationship between the colleges in the students' consideration sets?

20: What is the relationship between the colleges in the students' choice sets?

1.4. METHODOLOGY

The methodology used here is that proposed by Sekaran (2003). The seven steps in the hypothetico-deductive method of research are outlined in Figure 1-3. The methodology is explained in detail in the next chapter.

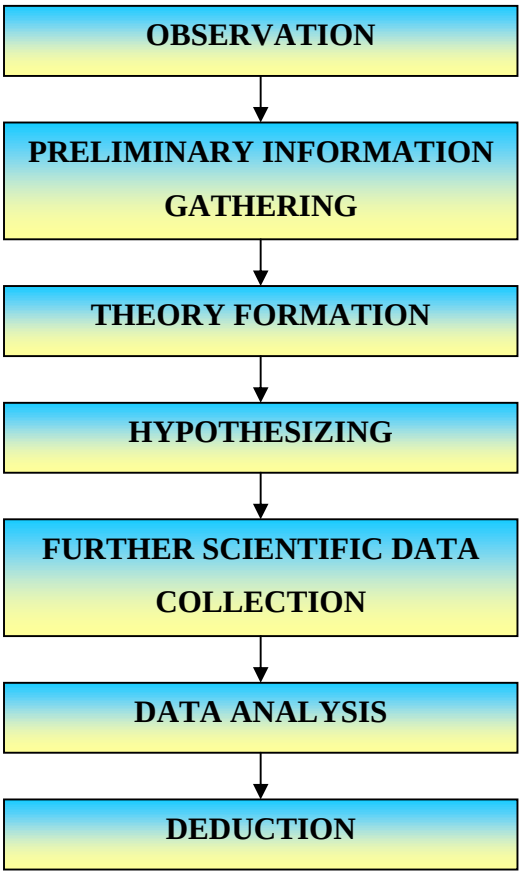

Figure 1-4: THE HYPOTHETICO-DEDUCTIVE METHOD

Sekaran, (2003, page 29)

1.5. OUTLINE OF THESIS

The thesis is organised as follows:

CHAPTER ONE: Contains the Introduction and background to the research problem. The purpose of this chapter is to outline the argument and present the problem within the context under examination. This chapter contains the research question and hypotheses tested in the study.

CHAPTER TWO: Describes the methodology used in answering the questions posed in Chapter One. This chapter includes the steps undertaken in data collection and the data analysis techniques employed in the process of producing the results.

CHAPTER THREE: Contains a review of the literature.

CHAPTER FOUR: Contains the data analysis and hypotheses tests

CHAPTER FIVE: Provides a synopsis and review of hypotheses and findings.

CHAPTER SIX: Presents the implications of the findings for institutions and higher education policy makers.

SUMMARY

The decision making behaviour of Leaving Certificate Students engaged in the college choice process is an extensive and complex problem solving process. Students' are considered to be highly involved in the *purchase* of this service and are likely to plan the purchase early due to the high perceived risk involved. Decision making about third level education choices has attracted a great deal of research by various authors including Chapman (1981) and Hossler and Gallagher (1987).

Decision making is influenced by information search, which enables the student to establish criteria by which they may evaluate alternative colleges and courses. The criteria for selecting

an institution are the factors a students' considers to be important. These variables will be of varying importance to the student. The most important information source is interpersonal.

The specific research question that this study aims to answer is: *what are the factors that influence the college choice of Leaving Certificate Students?* Twenty hypotheses are to be tested in this study.

The theoretical framework used in this study is adapted from and based around the first three stages of the Five Stage Model of the Buying Process proposed by Sheth et al. (1999) in and Schiffman and Kanuk (2000). The methodology used here is the seven step hypothetico-deductive method proposed by Sekaran (2003).

The next chapter (Chapter Two) discusses the methodology in detail. The items that are going to be utilized to measure constructs are also discussed in the next chapter.

CHAPTER TWO

METHODOLOGY

INTRODUCTION

This chapter provides a detailed overview of the methodology adopted for the purpose of examining the research problem. The purpose of this chapter is to provide the reader with an explanation of the data collection procedures and methods of data analysis used in Chapter Four to derive the results presented in Chapters Five.

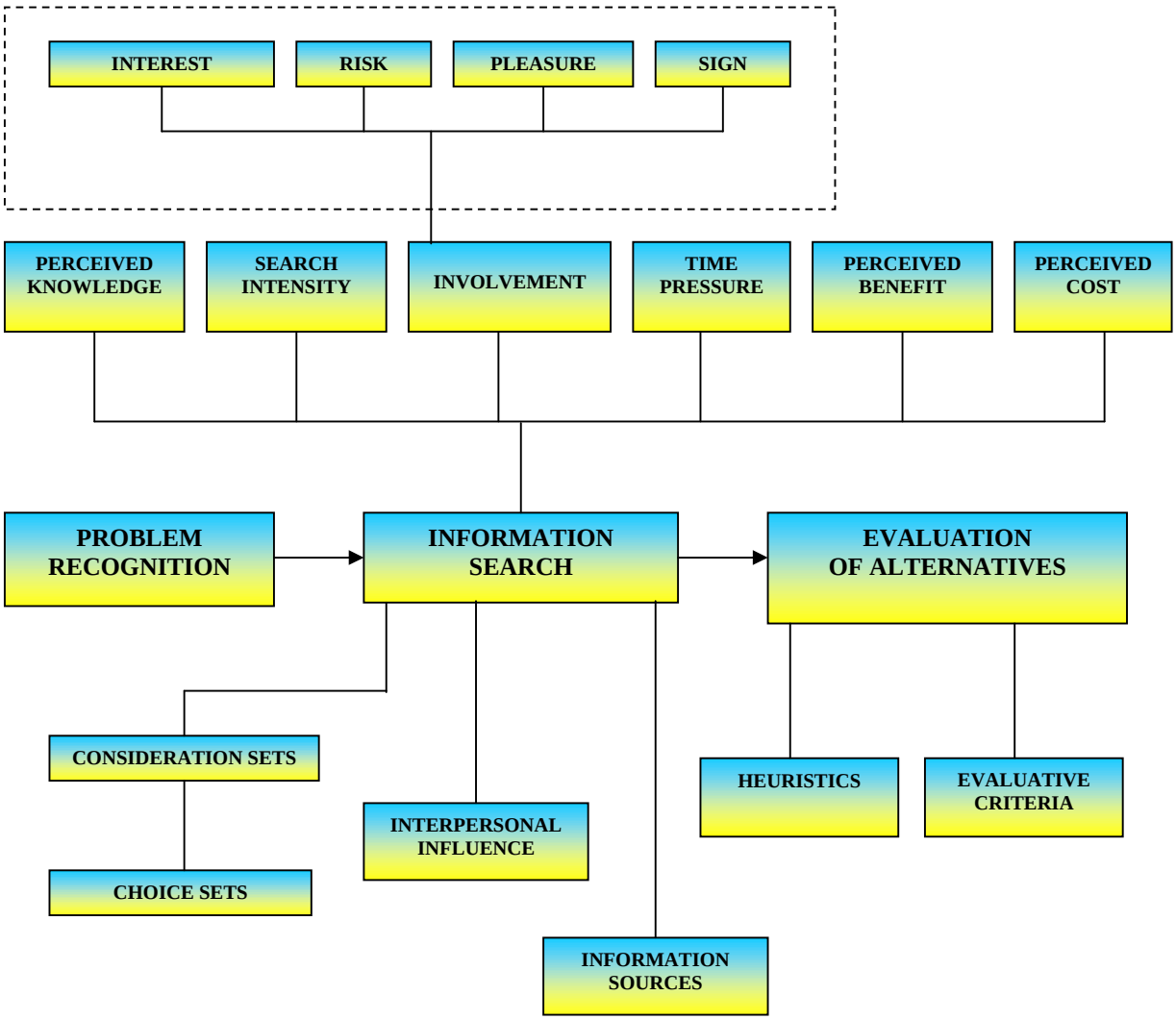

Figure 2-1: THEORETICAL FRAMEWORK

It is put forward that Leaving Certificate Students follow a multifaceted decision making process when making decisions regarding which third level institutions they would like to attend. Some of their decision making may be rational in terms of consumer behaviour. This study examines how students choose third level institutions from a marketing perspective. The following theoretical framework has been adopted in order to provide boundaries for this discussion. Figure 2-1 on the previous page is the theoretical framework under examination in this study. The hypothetical research framework is being examined using a methodological framework proposed by Sekaran (2003). Sekaran's suggested hypothetico-deductive methodology framework is detailed in Figure 2-2 below. This methodology framework is designed to ensure efficient measures of the constructs as proposed by Churchill (1979).

2.1. THE HYPOTHETICO DEDUCTIVE METHOD

The methodology used here is that proposed by Sekaran (2003, page 29). The seven steps in the hypothetico-deductive method of research are outlined in Figure 2-2.

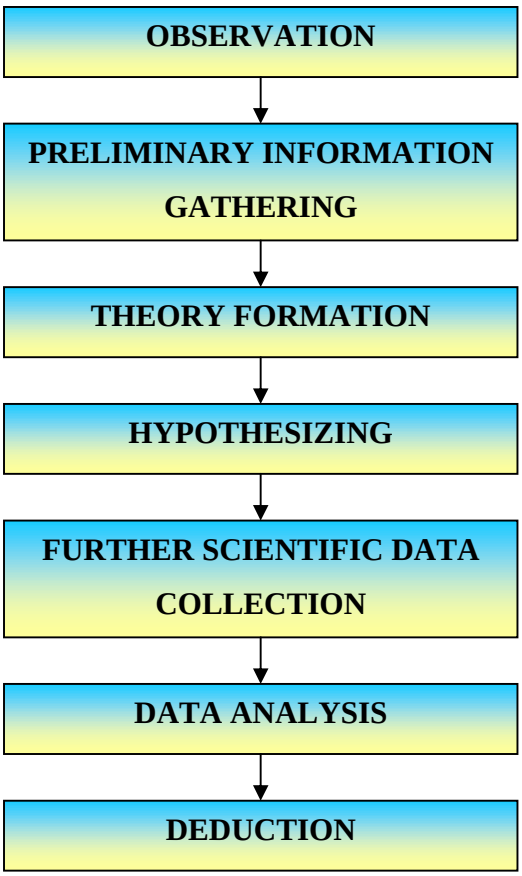

Figure 2-2: THE HYPOTHETICO-DEDUCTIVE METHOD
Sekaran, (2003)

2.1.1. OBSERVATION

"Observation is the first stage, in which one senses that certain changes are occurring, or that some new behaviours, attitudes, and feelings are surfacing in one's environment… When the observed phenomena are seen to have potentially important consequences, one would proceed to the next step." (Sekaran, 2003, page 29)

If Leaving Certificate Students are consumers of third level education, do they act as consumers do? So, while prospective students are being treated as consumers of the educational service to a certain degree, what if any is their consumer decision making approach. Therefore, the third level education institutions in Ireland will require knowledge of students as consumers of educational services. Consequently, it became apparent that a research project was required to answer the question above.

2.1.2. PRELIMINARY INFORMATION GATHERING

This stage "involves the seeking of information in depth, of what is observed. This could be done by talking informally to several people in the work setting or to clients, or to other relevant sources, thereby gathering information on what is happening and why." (Sekaran, 2003, page 30)

This part of the study consisted of the literature review and a review of secondary data. This is proposed as an economical and quick source of background information (Malhotra, 2003).

2.1.2.1. LITERATURE REVIEW

The literature review consisted of an overview of the higher educational choice literature a review of marketing and consumer behaviour literature within the pertinent areas. The marketing and consumer behaviour literature is immense and it was necessary to look at in specify only those areas that were precisely applicable to the problem of how students choose a third level institution. The literature review provided scales which could be used for the questionnaire and which had been tested for reliability and validity previously. Where single item measurement was adequate, for example gender or age, these scales have been adapted from the Central Statistics Office questions.

2.1.3. THEORY FORMATION

"Theory formulation… is an attempt to integrate all the information in a logical manner, so that the factors responsible for the problem can be conceptualized and tested. The theoretical framework formulated is often guided by experience and intuition." (Sekaran, 2003, page 30)

The information relating to previous studies brought up sections to be considered in the study and a suitable data collection technique for the quantitative phase of the research.

2.1.3.1. QUESTIONNAIRE

A quantitative research design using a survey technique was conducted by examining the research questions. According to Crowl (1996), quantitative research is a method "used to examine questions that can best be answered by collecting and statistically analyzing data that are in numerical form" (page 10). The type of research study conducted was an ex post facto. According to Kraus and Allen (1998), ex post facto means "after the fact" (page 60). Kraus and Allen (1998) further indicated this type of research examines events or processes that have taken place in the past. Ex post facto is strongly related to this research because it examined past decisions of the students surveyed.

The researcher used a mail questionnaire for quantitative data collection. In view of the fact that the objective was to gather data within a wide geographical area, it was impossible in terms of finance and time to conduct personal interviews with each member of the population of interest. The questionnaire method offered the advantages of speed and versatility at a low cost to the researcher.

Questionnaires are an effective method used to collect information regarding a samples characteristics, experiences, and opinions. The findings from survey questionnaires can then be generalised to the larger population the sample is supposed to represent (Gall, Borg, and Gall, 1996). In this study, survey questionnaires were used to elicit data regarding the factors that influenced the college choice of the Leaving Certificate Cohort.

"The main advantage of mail questionnaires is that a wide geographical area can be covered in the survey. They are mailed to respondents, who can complete them at their convenience…

The return rates of mail questionnaires are typically low. A 30% response rate is considered acceptable. Another disadvantage of the mail questionnaire is that any doubts the respondents might have cannot be clarified." (Sekaran, 2003, page 237)

2.1.3.2. QUESTIONNAIRE CONTENT

The questionnaire (See Appendix B) consists of four sections as follows:

SECTION A

This section of the questionnaire contains the twelve questions of the Consumer Susceptibility to Interpersonal Influence Scale developed by Bearden, Netemeyer and Teel (1989).

SECTION B

This section contains seven sub-sections of questions relating to the following areas:

B1: This section measured the *consideration set* and *choice set* of the students. The colleges that students gathered information about are the *consideration set*. The colleges that students applied to attend are the *choice set*.

B2: When decision was made to go to college and time spent on the evaluation process

B3: Number of open days attended

B4, B5 and B6: Questions relating to the Institute of Technology Tralee

B7: Information sources and their usefulness

SECTION C

This section contains four sub-sections of questions relating to the following areas:

C1: Contains questions relating to the preference criteria used to evaluate and choose a college.

C2: Contains a list of Interpersonal sources and asks how useful students found them.

C3: contains statements measuring different constructs and their sources as outlined in Table 2-1:

Table 2-1: APPENDIX B SECTON C3: CONSTRUCTS

Q	CONSTRUCT	SOURCE
1-3	PRODUCT PERCEIVED IMPORTANTCE (INTEREST)	KAPFERER & LAURENT, 1989
4-6	PERCEIVED RISK – RISK PROBABILITY	KAPFERER & LAURENT, 1989
7-9	PERCEIVED RISK – RISK IMPORTANCE	KAPFERER & LAURENT, 1989
10-14	PERCEIVED KNOWLEDGE	SRINIVASAN & RATCHFORD, 1991
15-16	SIGN VALUE	KAPFERER & LAURENT, 1989
17-20	SEARCH INTENSITY	BEATTY & SMITH, 1987
21-23	PERCEIVED BENEFITS	BEATTY & SMITH, 1987
24-25	PERCEIVED COST	SRINIVASAN & RATCHFORD, 1991
26-27	TIME PRESSURE	BEATTY & SMITH, 1987
28-29	HEDONIC VALUE	KAPFERER & LAURENT, 1989

C4: Students were asked to indicate their level of agreement with five statements, each of which corresponds to one of the following heuristics in Table 2-2:

Table 2-2: APPENDIX B SECTION C4: HEURISTICS

QUESTION	HEURISTIC MEASURED
1	COMPENSATORY HEURISTIC[1]
2	CONJUNCTIVE HEURISTIC[2]
3	DISJUNCTIVE HEURISTIC[3]
4	LEXICOGRAPHIC HEURISTIC[4]
5	AFFECT REFERRAL HEURISTIC[5]
SOURCES	SCHIFFMAN & KANUK, 2000; SHETH, MITTAL & NEWMAN, 1999

[1] **Compensatory Decision Rule:** A type of decision rule in which a consumer evaluates each brand in terms of each relevant attribute and then selects the brand with the highest weighed score
(Schiffman & Kanuk, 2000).
[2] **Conjunctive Decision Rule:** A non-compensatory decision rule in which consumers establish a minimally acceptable cut-off point for each attribute evaluated. Brands that fall below the cut-off point on any one attribute are eliminated from further consideration (Schiffman & Kanuk, 2000).
[3] **Disjunctive Decision Rule:** A non-compensatory decision rule in which consumers establish a minimally acceptable cut-off point for each relevant product attribute; any brand meeting or surpassing the cut-off point for any one attribute is considered an acceptable choice (Schiffman & Kanuk, 2000).
[4] **Lexicographic Decision Rule:** A non-compensatory decision rule in which consumers first rank product attributes in terms of their importance then compare brands in terms of the attribute considered most important. If one brand scores higher than the other brands, it is selected; if not, the process is continued with the second ranked attribute, and so on (Schiffman & Kanuk, 2000).
[5] **Affect Referral Decision Rule:** A simplified decision rule by which consumers make a product choice on the basis of their previously established overall ratings of the brands considered, rather than on specific attributes (Schiffman & Kanuk, 2000).

SECTION D

This section contains questions relating to personal information about the student.

2.1.4. HYPOTHESIZING

"Hypothesizing is the next logical step… from the theorized network of associations among the variables, certain testable hypotheses or educated conjectures can be generated… Hypothesis testing is called deductive research. Sometimes, hypotheses that were not originally formulated do get generated through the process of induction. That is, after the data are obtained, some creative insights occur, and based on these, new hypotheses could get generated to be tested later." (Sekaran, 2003, page 31)

2.1.5. DATA GATHERING

This is the final stage of the data collection as outlined in Figure 2-3.

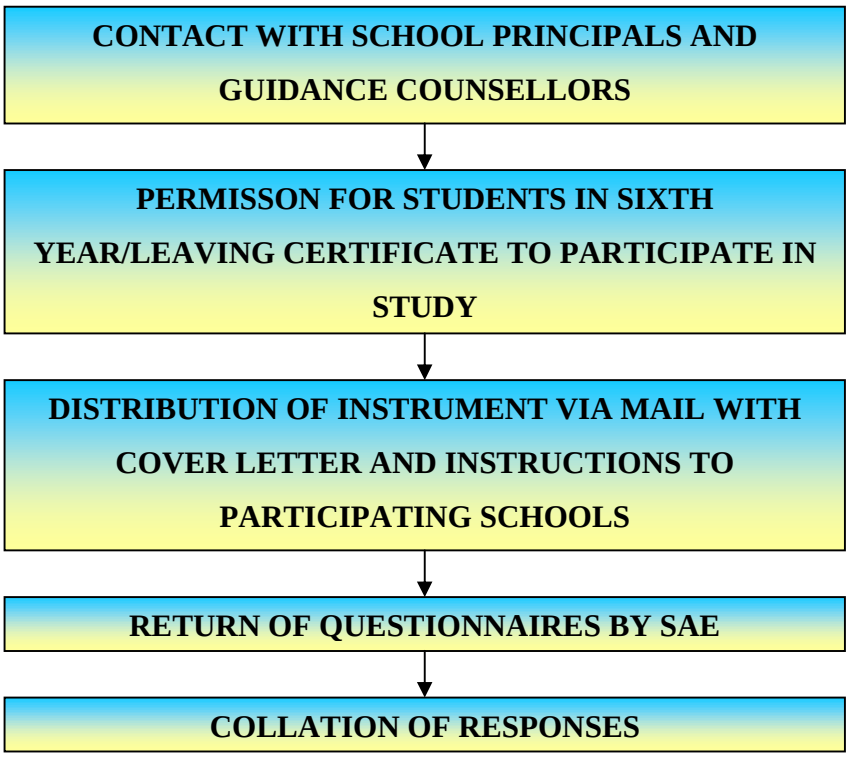

Figure 2-3: DATA COLLECTION

2.1.5.1. PILOT TESTING

Prior to collecting information in the field, a pilot test of the survey instrument was conducted using Leaving Certificate Students. The data was then analysed as well as each of the factors in the final instrument examined using Cronbach's alpha (1946, 1990). Cronbach's alpha is a reliability coefficient that indicates how well the items in a set are positively correlated to on another… The closer Cronbach's alpha is to 1, the higher the internal consistency reliability (Sekaran, 2003). This test measures the consistency of a set of items (Sekaran, 2003). Consistency indicates how well the items measuring a concept hang together as a set. (Sekaran, 2003)

The pilot testing resulted in alterations to the instrument design and ordering of questions as well as minor language adjustments.

2.1.5.2. POPULATION UNDER EXAMINATION

The population under examination is Leaving Certificate Students from schools in Kerry, Cork, Clare, Limerick, Tipperary and Waterford. Phone calls were made to career guidance counsellors in the participating schools who agreed to administer and return the questionnaires.

This grouping of student type was selected to ensure that students included in the final survey could have chosen to attend most third level institutions.

Hence, specialist courses of study, which were not offered by all institutions, were excluded from the sample population.

Additionally, the categories may contain students entering institutions for recreation, leisure and non-occupational learning activities. It is likely that students entering institutions for non-occupational intentions will choose institutions for a range of reasons that are not directly associated to career improvement.

However, this grouping of people should show a variety of external information search behaviours within a framework in which they might be expected to be relatively equal in terms of their

- Demographics,
- Access to information about college choice, and
- Access to third level education.

2.1.5.3. SAMPLE SIZE

A total of 200 questionnaires were mailed to secondary schools in counties Kerry, Cork, Clare, Limerick, Tipperary and Waterford. The response rate was 120 or 60% of which 62 were female and 58 were male which is considered to be representative of the population as a whole (Sekaran, 2003).

2.1.5.4. ADMINISTRATION AND RETURN OF MAIL SURVEYS

A covering letter enclosed with the survey was sent to career guidance counsellors in the participating schools indicating the importance of the study. As well as this, detailed instructions on how to answer each question were also enclosed. The career guidance counsellors administered and collected the questionnaires and returned them by mail. They were requested to return the questionnaires at their earlier convenience. The first returned questionnaires were received within five days, with the latest returns coming five weeks after they were sent. Students were reassured about the anonymity of their responses.

The counsellors were provided with a stamped self-addressed envelope for the return of the survey.

2.1.6. DATA ANALYSIS

The data analysis was conducted in a series of stages as outlined below in Figure 2-4.

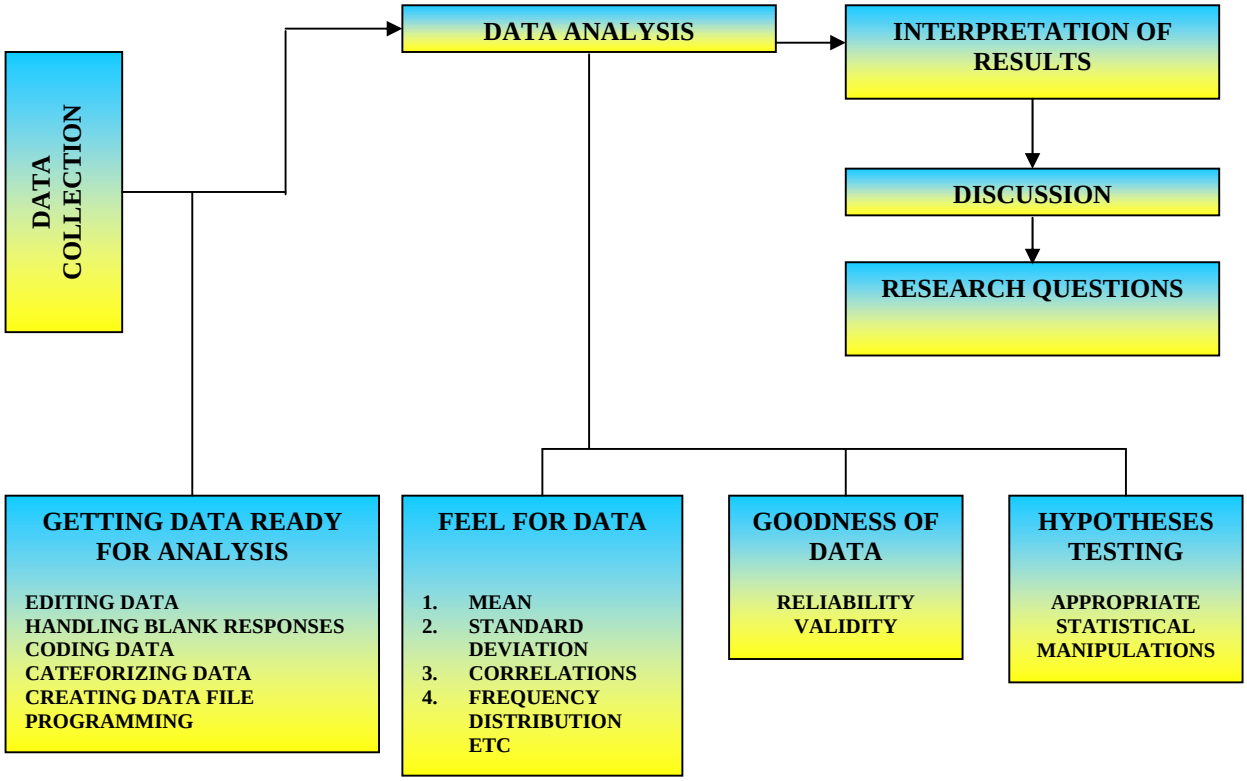

FIGURE 2-4: FLOW DIAGRAM OF DATA ANALYSIS PROCESS

Sekaran, (2003)

Data analysis was conducted according to that proposed by Sekaran, (2003).

2.1.6.1. EDITING DATA

Data was edited the same day it was collected so that the respondents could be contacted for any further information or clarification. Incoming questionnaires were checked for incompleteness and any inconsistencies. Those inconsistencies that could be logically corrected were so at this stage.

2.1.6.2. HANDLING BLANK RESPONSES

The computer package used was SPSS for Windows Version 12.0.1. It was programmed to handle any blank responses.

2.1.6.3. CODING

The questionnaire was coded according to that outlined by Sekaran (2003). The data was transferred onto a coded sheet to prevent errors in transfer.

2.1.6.4. CATEGORIZATION

A 7-point interval scale plus a 'No Opinion' box was used in the questionnaire whereby the level of agreement, level of importance and rating of an item was required. Closed questions were also used in the questionnaire. Classification data, i.e. personal information questions were also included.

2.1.6.5. DATA ANALYSIS USING SPSS FOR WINDOWS VERSION 12.0.1.

Sekaran, (2003, page 306) states "in data analysis we have three objectives: getting a feel for the data, test the goodness of data, and testing the hypotheses developed throughout the research."

2.1.6.5.1. FEEL FOR THE DATA

This is done by checking the central tendency and the dispersion of the data. The mean, range, standard deviation and the variance give a good indication of how the respondents reacted to the items in the questionnaire and how good the items and measures are. The following were carried out first as proposed by Sekaran, (2003): The frequency distributions for the demographic variables; the mean, standard deviation, range and variance of the other independent and dependent variables; an inter-correlation matrix of the variables.

"Establishing the goodness of data lends credibility to all subsequent analyses and findings. Hence, getting a feel for the data becomes the necessary first step in all data analysis." (Sekaran, 2003, page 307)

2.1.6.5.2. RELIABILITY AND VALIDITY

The reliability is established by testing for both consistency and stability. As mentioned previously, reliability of the data was assessed using Cronbach's alpha for the multi-item measures. The scales used had previously been tested in prior studies and estimates for reliability and validity exist. See for example, Bearden, Netemeyer and Teel (1993).

Factorial validity was established by doing a factor analysis on the data. Factor analysis analyses the underlying makeup of relationships. Factor analysis is a data reduction technique and is primarily used to sum up the data by analysing co-variance and/or correlation matrices and identifying potentially hidden factors.

2.1.6.5.3. HYPOTHESES TESTING

The following procedures were used to test the hypotheses:

2.1.6.5.3.1. ONE SAMPLE T-TEST

"This test is based on the Student's t statistic which assumes that the variable is normally distributed, the mean is known, and the population variance is estimated from the sample." (Malhotra, 1999, page 470)

A one sample t-test is a hypothesis test for answering questions about the mean where the data are a random sample of independent observations from an underlying normal distribution $N(\mu,d^2)$, where d^2 is unknown. The null hypothesis for the one sample t-test is: H_0: $\mu = \mu_0$, where μ_0 is known.

That is, the sample has been drawn from a population of given mean and unknown variance (which therefore has to be estimated from the sample). This null hypothesis, H_0 is tested against one of the following alternative hypotheses, depending on the question posed:

H_1: μ is not equal to μ
H_1: $\mu > \mu$

H_1: $\mu < \mu$
(StatSoft, 2005)

2.1.6.5.3.2. PAIRED SAMPLE T-TEST

The paired samples t-test compares the means of two variables (Malhotra, 1999). It computes the difference between the two variables for each case, and tests to see if the average difference is significantly different from zero.

This null hypothesis, H_0 is tested against one of the following alternative hypotheses, depending on the question posed:

H_1: $\mu_1 = \mu_2$

H_1: $\mu_1 > \mu_2$

H_1: $\mu_1 < \mu_2$
(StatSoft, 2005)

2.1.6.5.3.3. PRODUCT MOMENT CORRELATION

It is used to summarize the strength of association between two metric (interval or ratio scaled) variables (Malhotra, 1999). It is also known as the Pearson correlation. It assumes that the two variables are measured on at least interval scale and determines the extent to which values of the two variables are proportional to each other. *Proportional* means *linearly related*; that is, the correlation is high if it can be summarized by a straight line (StatSoft, 2005).

2.1.6.5.3.4. GENERAL LINEAR MODEL ANALYSIS OF VARIANCE

The purpose of GLM ANOVA is to test for significant differences between means (StatSoft, 2005).

2.1.7. DEDUCTION

"Deduction is the process of arriving at conclusions by interpreting the meaning of the results of the data analysis." (Sekaran, 2003, page 32)

SUMMARY

This chapter has been devoted to presenting the research methodology for the study. The statistical procedures that are used to test the hypotheses were presented; the research design including data collection methodology, the sample and survey instrument, the measurement scales that is used and the pretest were discussed; and the issues of reliability and validity were addressed.

CHAPTER THREE

LITERATURE REVIEW

INTRODUCTION

Higher Education plays a crucial role in the social, intellectual, cultural, economic and political life of Ireland. Third level education is seen as increasingly necessary for a good quality of life and broader and more exciting career opportunities. The term *Higher Education* relates to three specific types of institution i.e. Universities, Institutes of Technology, and Colleges of Further Education.

3.1. THIRD LEVEL EDUCATION IN IRELAND – AN OVERVIEW

The system of higher education in Ireland has undergone rapid change over the past twenty years, with a great increase in student enrolments. In the year 2000/01, there were 120,000 full-time students, with a further 32,265 part-time students enrolled in third level. Over 69,254 of the full-time and over 11,313 of the part-time students were in the University sector. In the Institutes of Technology sector there were 48,360 full-time and 17,700 part-time students. A group of other third level colleges had 2,377 full-time and 3,252 part-time students registered. Of the total of 120,000 full-time students, only 13,147 were aged 25 or over. (Eurydice, 2002)

There are five categories of institutions providing higher education:

a. Non-university vocational and training institutions, state supported;
b. Institutes of Technology and the Dublin Institute of Technology;
c. Seven universities, with a number of colleges of education and recognised colleges;
d. About eight private third level colleges, without state aid;
e. Open and distance education providers such as OSCAIL, which is state supported, and the Open University, which is a UK-based institution. (Eurydice, 2002)

"To date, government policy is still in favour of a binary higher educational policy — the universities and the non-university sector, but increasingly there is a blurring of the distinction." (Eurydice, 2002, 6.3)

"The third level education system in Ireland encompasses the university sector, the technological sector and the colleges of education – all of which are autonomous and self-governing but are substantially State funded. In addition, particularly in recent years, a number of independent private colleges have developed, offering a range of mainly business courses conferring professional qualifications and, in some instances, recognised diplomas and degrees." (Eurydice, 2003, page 27,)

The participation rate in higher education has increased from eleven percent in 1965 to an estimated fifty seven percent in 2003. The increase in numbers is from about 21,000 in 1965 to over 137,000 in 2003. Ireland was one of the first European countries to realise the economic importance of education and economists suggest that this up-skilling of the labour force accounts for almost one percent per annum of additional national output over the last decade or so. There is general concord among Irish government representatives and those in tertiary education that this growth in tertiary education participation has been extremely beneficial both to Irish society and to the economy (Brenner et al., 2004).

"The first EU Education Report *Progress towards the common objectives in education and training* suggests that in 2002 85.6 percent of 22 year olds in Ireland had completed upper secondary education as compared to 75.4 percent across the EU (CEC 2004). Participation in and completion of tertiary education have increased significantly to reach 26 percent surpassing the OECD average of 24 percent." (See Table 3-1, Appendix A) (Brenner et al., 2004, page 11).

A total of 55,467 students will sit the Leaving Certificate in 2005. This is the lowest figure since 1991. To date 42,680 Leaving Certificate students have applied for third level education through the Central Applications Office (Flynn, 2005; Walshe, 2005).

In 2003, 74,922 students were attending Universities; 50,948 were attending Institutes of Technology in Ireland (see Table 3-3, Appendix A) (Brenner et al., 2004).

"There were an estimated 36,346 new entrants to higher education in 2003. The vast majority were to the Universities (46 percent) and to the Institutes of Technology (44 percent), with 3.7 percent to Colleges of Education and 6.5 percent to 'Other Colleges' (which includes private colleges)." (Fitzpatrick Associates & O'Connell, P. J., ESRI, 2005, page xvi) (See Table 3-2, Appendix A)

This study shows that 36,346 students entered higher education in Ireland in 2003, an increase of some 3,622 from the 1998 figure of 32,724. This compares to a rise in the admission rate from 0.44 in 1998 to 0.54 in 2003. The admission rate in 2003 was more than twice the rate at the commencement of these surveys in 1980 (Fitzpatrick Associates & O'Connell, P. J., ESRI, 2005).

The majority of new entrants to higher education in 2003 were female, 52.2 percent (18,884). This is similar to 1998 when the female share was 52.7 percent. The representation of females among higher education entrants indicates their proportionate representation among Leaving Certificate students and so potential new entrants to higher education. Females account for a higher share of Leaving Certificate students because they have higher retention rates to Leaving Certificate than males (Fitzpatrick Associates & O'Connell, P. J., ESRI, 2005).

Figure 3-1 on page 30 shows that females accounted for the majority of new entrants to higher education in Universities (58 percent) and in the Colleges of Education (86 percent). Males accounted for the majority of new entrants in Institutes of Technology (56 percent) and in 'Other Colleges' (54 percent) (Fitzpatrick Associates & O'Connell, P. J., ESRI, 2005).

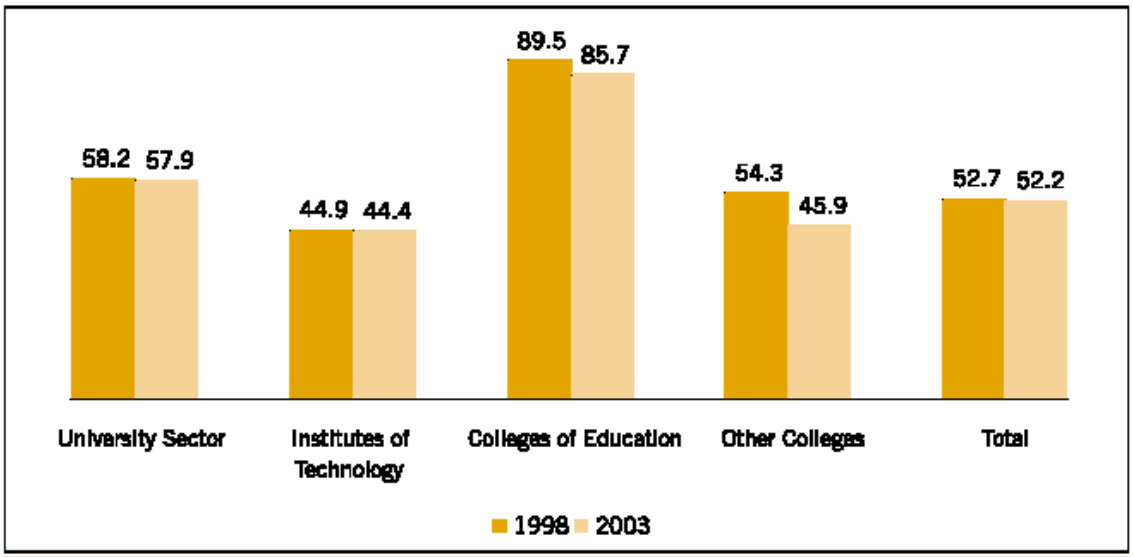

Figure 3-1: FEMALE SHARE OF ENTRANTS BY COLLEGE TYPE
(Fitzpatrick Associates, Survey of HEIs 2003/04)

The five leading fields of study accounted for 85 percent of new entrants in 2003. They were Social Science, Business and Law (27 percent); Humanities and Arts (18 percent); Engineering, Manufacturing and Construction (15 percent); Science, Mathematics and Computing (14 percent); and Health and Welfare (11 percent). The remaining five categories are relatively small in size, together accounting for 15 percent of new entrants (Fitzpatrick Associates & O'Connell, P. J., ESRI, 2005).

The male and female distribution across fields of study differs. A total of 71 percent of males were enrolled in three fields of study, namely Social Sciences, Business and Law; Science, Mathematics and Computing; and Engineering, Manufacturing and Construction. For females, 67 percent were enrolled in three fields of study as follows: Humanities and Arts; Social Sciences, Business and Law; and Health and Welfare (Fitzpatrick Associates & O'Connell, P. J., ESRI, 2005).

Figure 3-2 on page 31 shows that the national rate of admission to higher education was 0.54 in 2003. This is a rise of 10 points on the 1998 admission rate of 0.44. Admission rates have improved over each of the national studies to such an extent that the rate of admission in 2003 was more than twice the 1980 (Fitzpatrick Associates & O'Connell, P. J., ESRI, 2005).

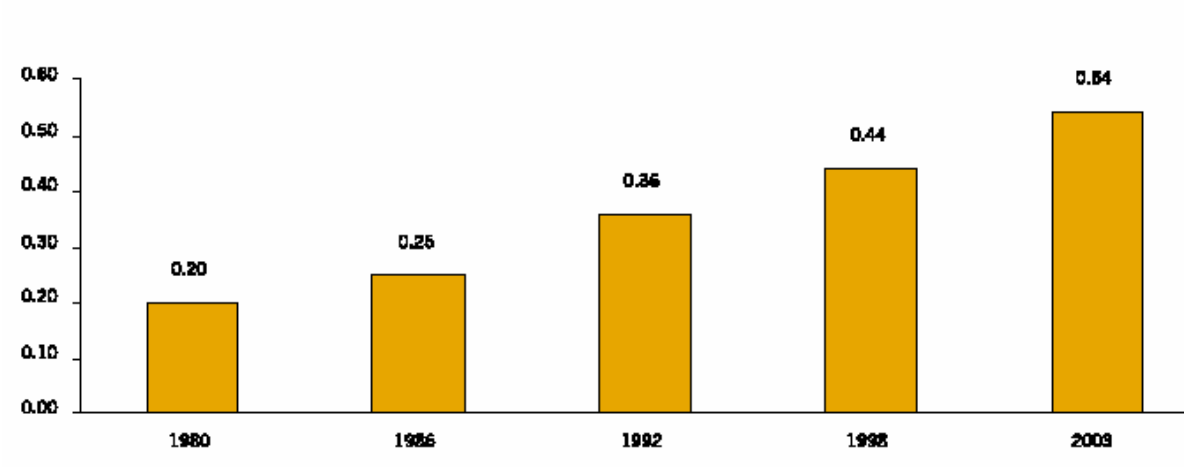

Figure 3-2: TREND IN ADMISSION RATES 1988-2003
(Fitzpatrick Associates, Survey of HEIs 2003/04)

In 2003 nine counties had estimated admission rates of 0.61 or greater, eleven had rates of 0.54 to 0.58, and six had rates less than 0.54. The nine counties with the high estimated admission rates were Leitrim, Longford, Clare, Kerry, Mayo, Galway, Roscommon, Sligo and Tipperary. The six counties with relatively low estimated admission rates were Laois, Offaly, Wicklow, Monaghan, Dublin and Donegal.

There is a geographic pattern of high approximate admission rates along Ireland's west coast, with comparatively high rates in Kerry, Clare, Galway, Mayo, and Sligo. There are no visibly identifiable differences in approximate admission rates across counties making up the two NUTS II regions of the Southern and Eastern Region, and the Border, Midland and Western Region. There are also no identifiable patterns across counties making up the eight NUTS III regions, with the exception of relatively high estimated admission rates in the West (Mayo, Galway and Roscommon)[6] (Fitzpatrick Associates & O'Connell, P. J., ESRI, 2005).

Each county's estimated admission rate increased between 1998 and 2003. In twenty-two counties it increased because the number of new entrants from each county increased while the key age cohort from which they originated (i.e. 17-19 year olds) declined. It increased in four counties (Westmeath, Monaghan, Limerick and Donegal) because the decline in the number of

[6] NUTS regions are those regions drawn up for the purpose of deciding eligibility for EU structural funds. There are two main NUTS II regions, are the Border, Midland and Western Region, and the Southern and Eastern Region.

new entrants was less rapid than the decline in the age cohort from which they originated (see Table 3-3, Appendix A) (Fitzpatrick Associates & O'Connell, P. J., ESRI, 2005).

In 2002/2003 Dublin provided the highest number of students (30,179) with Cork second (16,100). Approximately, 5,275 Kerry students were attending college in 2003 (see Table 3-6, Appendix A) (Brenner et al., 2004).

UCD had the highest number of students enrolled in 2003 at 15,888. The Institute of Technology Tralee had a total of 2,422 students enrolled in 2003 (see Table 3-6, Appendix A) (Brenner et al., 2004).

3.1.1. EXPENDITURE ON TERTIARY EDUCATION

The total national (public and private) expenditure on education in Ireland reached €6.0 billion in 2003, a considerable growth over the €1.74 billion spent in 1990. This is equivalent to 4.44 percent of GDP (Brenner et al., 2004). Total investment (public and private) in tertiary education stands at some €1.44 billion in 2004 (Brenner et al., 2004).

Investment in tertiary education (see Table 3-5, Appendix A), in Ireland in 2001 was at 1.3 percent of Gross Domestic Product (Brenner et al., 2004). This relatively high level of investment in tertiary education represents the effect of a strong increase in educational expenditure. But this expenditure performance needs to be compared with other high spending states on tertiary education within OECD notably the USA and South Korea with 2.7 percent of GDP, Canada 2.5 percent, Denmark 1.8 percent, Finland and Sweden 1.7 percent and Australia 1.5 percent (Brenner et al., 2004).

Expenditure per student in Ireland compared to other EU countries is €9,900 per student, compared to the EU average of €8,800. Yet, as Irish students spend less time in third level than our EU partners, so we spend less on students over all their time in higher education - $32,411 compared with an OECD average of $42,906 (Brenner et al., 2004). CHIU (Conference of Heads of Irish Universities) research suggests that direct state support per student fell by €1,240 (at 2002 prices) between 1995 and 2001 (Brenner et al., 2004).

The decision to select a college is one of the most important and difficult decisions that a secondary school student will have to make in his or her adolescent life. There are many critical factors a student will have to consider when it comes to selecting the best college for them. The third level education system in Ireland is broad in scope and encompasses the university sector, the technological sector, the colleges of education and private, independent colleges.

Ireland has twenty publicly funded tertiary education institutions, seven of them Universities and thirteen of them Institutes of Technology along with some small teacher training institutions. There are also some privately funded tertiary education institutions. The Universities are funded through the Higher Education Authority (HEA) and the Institutes of Technology direct by the Department of Education and Science (DES) (Brenner et al, 2004).

As we have seen the numbers participating in higher education in Ireland have increased significantly in recent decades to one of the highest participation rates in the world. Entry to third level education for Irish students is based upon performance in the final secondary school examination, the Leaving Certificate. Access to third level education in Ireland is competitive. Application for full-time undergraduate courses validated in Ireland is made through the Central Applications Office (CAO). The total number of students who applied to college in 2003 was 65,558; 52,630 of which were Leaving Certificate Students. More than 46,800 people were offered one or more college places in Round 1 2003, with about 33,000 deciding to accept their offers at that stage. In 2004, 63,289 students applied to the CAO for a place on a Cert/Diploma/Degree course. Around 55, 000 of these were actual Leaving Certificate Students. In the end, 37,796 of those who applied, making up 60 percent of applicants, had accepted a place on a course offered to them (Mooney, 2005a). In 2004, 44.15 percent of degree-course applicants and 73.68 percent of diploma/certificate-course applicants were offered their first-preference course. From a closer look at the figures it is likely that their degree offer was the higher preference for many applicants, and their highest diploma/certificate-course preference may really be a lower preference. Therefore, probably around half of all applicants did not receive their real first choice of course (O'Donnell, 2004).

3.2. COLLGE CHOICE – AN OVERVIEW

Researchers, Punj and Staelin (1978) stated that little knowledge exists about the underlying student *consumer buyer behaviour* and how students *select* a third level institution. This is also pertinent to Ireland where little research has been undertaken on the college choice process in general.

Researchers and policymakers "rarely include the individuals who are the focus of their studies in the development of solutions to their own problems" (Freeman, 1997, page 523).
According to Hamrick and Hossler (1996), "[in] many respects, research on the process of postsecondary educational decision making or student college choice is still in its infancy. Although this phenomenon has received considerable attention in the last ten years . . . there is still much to be learned. To date, college choice models have relied heavily upon theoretical constructs borrowed from economics, status attainment, and social capital research. While college choice models based upon these perspectives have advanced our understanding of the college choice phenomenon, these perspectives can also limit future research because they constrain the variables and processes which investigators consider." (Page 179)

There is a lot to learn about how prospective students find, absorb and store information in order to make logical and rational decisions on choice of third level institutions and courses in Ireland. Given the time spent, and the complexity and variety of choices involved, one would classify such decision making as extensive problem solving (Kotler, 1997).

The college choice process consists of the factors that influence Leaving Certificate Students when making a decision regarding which third level institutions to choose. College choice has been defined as "A complex, multistage process during which an individual develops aspirations to continue formal education beyond high school, followed later by a decision to attend a specific college, university or institution of advanced vocational training." (Hossler, Braxton & Coppersmith, 1987, page 284)

Jordaan (1963) defined vocational exploration as a variety of cognitive and behavioural activities designed to generate information about the individual and the environment which is used to prepare for, enter, adjust to, and progress in an occupation.

Adolescents (including those in Ireland) encounter their first major life-framing decision when they approach the decision of which course(s) to apply to and which third level institution to attend (Galotti & Kozberg, 1996). The criteria that students use are considered to vary with college type (James, Baldwin, & McInnis, 1999) and student attributes (Ashar & Lane, 1996; Edgett & Cullen, 1992; Litten, 1982).

Licata and Frankwick (1996); Roche (1994) and Stewart (1991) have used the term *product* to refer to the characteristics that make up the third level institution. Sevier (1996) argues that a university's *product* is the sum of the student's academic, social, physical, and even spiritual experiences.

3.2.1. MODELS OF COLLEGE CHOICE

The complexity of the college choice process has been the focus of many empirical investigations over the years (D. W. Chapman, 1981; R. Chapman, 1984; R. Chapman & Jackson, 1987; Hearn, 1991; Hossler et al. 1989; Hossler & Gallagher, 1987; Hossler, Schmit & Vesper, 1999; Jackson, 1982; Litten, 1991; Martin & Dixon, 1991). As mentioned previously, these studies have been undertaken in countries outside of Ireland.

These studies are based on a three stage college choice model that includes a predisposition, a search, and a choice stage focusing on student and institutional factors that influence such a complex process. Investigations on the final stage of the student college choice process have been single-institution studies and have typically focused on specific institutional characteristics and the role of their marketing efforts on students' decisions to attend (Hossler, Braxton, & Vesper, 1991).

Chapman's (1981) model contains factors similar to the generic consumer behaviour model of Schiffman and Kanuk (2000) in Figure 3-3 on page 36. Chapman, in his model takes into account both background and current characteristics of the student, the student's family, and the characteristics of the college. The model is restricted to describing the influences affecting traditional age (i.e. late teens) prospective college students and it explains two sets of influences: *student characteristics* and *external influences* (Chapman, 1981):

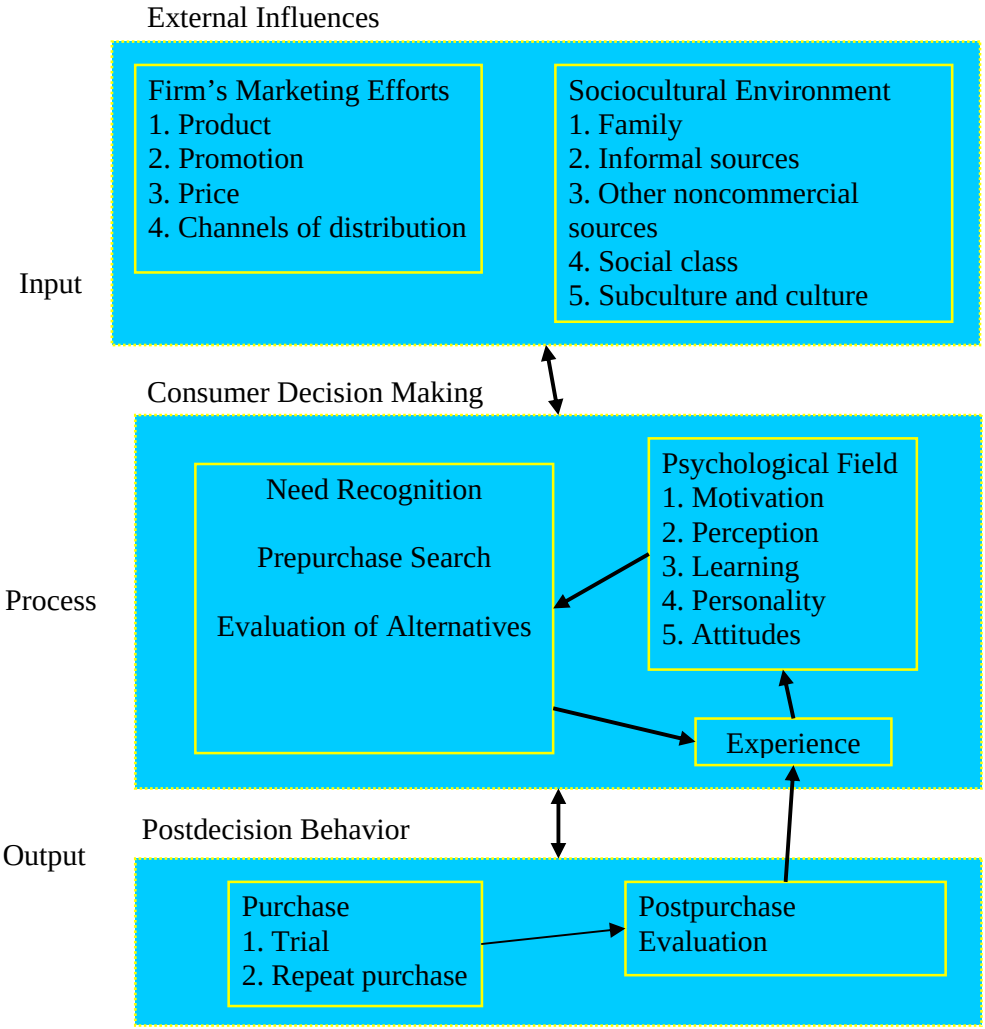

Figure 3-3: A SIMPLE MODEL OF CONSUMER DECISION MAKING

Schiffman & Kanuk, (2000)

i. STUDENT CHARACTERISTICS

According to Chapman, student characteristics include socioeconomic status, aptitude, level of educational aspiration/expectation, and high school performance. The first characteristic, socioeconomic status has a major impact on college choice according to Chapman. Students of different socioeconomic statuses enter higher education at different rates and they attend different types of colleges and universities. Family income, an aspect of socioeconomic status, interacts with institutional cost and financial aid, to curb what students believe are their options. Upper income students tend to prefer private universities, middle income students

prefer state universities, and lower income students often prefer community colleges or state colleges. Socioeconomic status serves as a backdrop that influences attitudes and behaviours that are related to college choice (Chapman, 1981).

In Ireland the children of higher professionals and of farmers account for a higher share of new entrants than their share of the population sub-group, 13 percent compared to 7 percent and 11 percent compared to 7 percent respectively. The children of non-manual workers, of unskilled manual workers and of agricultural workers account for a lower share of new entrants compared to their share of the population sub-group (Fitzpatrick Associates & O'Connell, P. J., ESRI, 2005).

Fitzpatrick Associates and O'Connell, 2005, "also examined a disaggregation of the data by type of college entered, distinguishing between universities, institutes of technology, and education and other higher education colleges. The results of that analysis would suggest that the relationship between socio-economic background and type of higher educational institution has weakened markedly over time, substantially reducing the differences in the socio-economic background of entrants to the different sectors of higher education. In contrast, Clancy (2001) shows that there was a systematic relationship between social background and sector of higher education in 1998: the children of higher professionals were much more likely to enter university, while a greater proportion of the children of skilled manual workers were likely to enter institutes of technology. Some weakening of the relationship between socio-economic background and sector of higher education is possible in the context of the very substantial increase achieved in the overall admission rate, from 0.44 in 1998 to 0.54 in 2003. However, a very substantial weakening of that relationship over a comparatively short period of time is not plausible. As a further check, we also conducted a special analysis of the 2002 School Leavers Survey to ascertain the socio-economic background of college entrants from the cohort of those who left second level education in the 2000/2001 academic year. The analysis suggested that the relationship between socio-economic background and higher education sector remained strong amongst those who left school in 2000/2001, just a couple of years prior to the survey of new entrants in 2003. The 2003 data on entrants are based on relatively small numbers from a sample survey. We have already noted… that there are a substantial number of sources of potential error in a sample

survey, and that the response rate to this survey, 36 percent, fell well short of that achieved in previous surveys. When these data are disaggregated by higher education sector, they are subject to greater margins of error than apply to the aggregate distribution of entrants by socio-economic background… In view of this, we consider that the findings relating to higher education sector by socioeconomic background should be interpreted with caution and that the assessment of trends over time in the sector breakdown of new entrants should await the larger scale survey of all new entrants in the 2004 entry cohort." (Fitzpatrick Associates & O'Connell, P. J., ESRI, 2005, pages 73-74).

The second student characteristic Chapman mentions is aptitude. Aptitude influences high school achievement and performance on the aptitude tests that are associated with college entrance examinations. Colleges often publish the test scores and class rank of their entering class, thus encouraging students to self-select institutions with enrolled students who exhibit similar aptitudes as themselves (Chapman, 1981).

The level of educational aspiration/expectation is another student characteristic Chapman refers to. Expectations are what people perceive they will be doing or will have accomplished at some future date. On the other hand, aspirations are wishes or desires expressing an individual's hopes about the future. Educational aspirations and expectations are related to high school performance and college choice (Chapman, 1981).

The last student characteristic according to Chapman is high school performance. This has a direct impact on college choice. Most colleges accept or reject students based on their high school performance. Students with good academic records also receive more benefits. These students receive more encouragement to go on to college from teachers, family, and friends. High performing students are also more likely to receive college advising from a guidance counsellor and more likely to receive college scholarships (Chapman, 1981).

In Ireland "over a half (58 percent) of new entrants had attained four honours or less in 2003, up slightly on 1998 when 53 percent of new entrants attained four honours or less." (Fitzpatrick Associates & O'Connell, P. J., ESRI, 2005, page 9)

ii EXTERNAL INFLUENCES

The second set of characteristics that Chapman refers to, are external influences. External influences include significant persons, fixed college characteristics, and college efforts to communicate with students. The first external influence, significant persons, includes friends and family. Students are strongly influenced by the comments and advice of friends and family when selecting a college. Comments from significant persons shape the student's expectations of what a particular college is like. Friends and family may also offer advice about where a student should go to college. Students may also choose to go to school where their friends go (Chapman, 1981).

According to Chapman, fixed college characteristics include location, costs, campus environment, and the availability of desired programs. All of these characteristics are relatively stable. Changes occur slowly, over long periods of time (Chapman, 1981).

The final external characteristic is college efforts to communicate with students. This characteristic includes college marketing strategies such as brochures, personal contact, and high school visits. High school visits by college admissions representatives and campus visits by prospective students are the most effective recruiting activities. Students who expect to go on to college are more likely to seek out college information from such sources (Chapman, 1981).

These external characteristics in Chapman's model would correspond with the external influences in the Schiffman and Kanuk model (Figure 3–3, page 36).

Chapman's (1981) model includes various aspects put forward in the field of consumer behaviour. As mentioned previously, Chapman proposes that essential elements in the college choice model are:

- The attributes of the student
- The influence of institutional attributes on the decision to attend
- Communication efforts of the institutions in attracting students.

The attributes of the student can be looked at as being similar to the *psychological field* in Figure 3-3 on page 36.

In addition, services (for example, the courses provided by third level institutions in Ireland) are in a very unusual position, as the decision to buy may not solely be made by the consumer (student) (Sirakaya, McClelland and Uysal, 1996). For instance, the decision to choose a particular third level institution is not only dependent on the Leaving Certificate Student's choice it may also be dependent on their choice of subjects for the Leaving Certificate. Some third level institutions in Ireland require that the student has studied certain subjects and at a certain level. For example the Royal College of Surgeons, Dublin, requires that a minimum of six subjects in the Leaving Certificate Examination must be taken; which must include, Irish, English, Mathematics, another language and a science subject from the group Physics, Chemistry, Physics/Chemistry or Biology; and at least one grade of B at higher level in a science subject from the group Physics, Chemistry, Physics/Chemistry, Biology or Mathematics must be presented (Royal College of Surgeons, 2004).

Students completing their CAO forms will apply to institutions and courses where they know they will probably acquire the points to gain acceptance *and* where they have satisfied any entry requirements laid down by the particular institution. The student will apply to institutions where the odds are most acceptable and where they will gain a maximum possible return from their choice. Certain courses are Restricted-Application Courses (CAO, 2005). These courses are mainly in the area of art and design, and have portfolio requirements and interviews, which take place during the months of March and April. For this reason any course designated in the CAO handbook as Restricted Application can only be listed on the initial February 1st application. Following that date, the CAO supplies the colleges in question with the names of every applicant who has listed such a course. The colleges in turn arrange portfolio presentations and interviews for every applicant. They are therefore not in a position to accept further applicants later in the application process. For example the National College of Art and Design has an interview for first year. Here the college *selects* students who are likely to succeed within the study environment, and who meet selection criteria within a competitive context.

The three-phase model developed by Hossler and Gallagher (1987) is outlined in Figure 3-4 on page 42. This model covers factors that are thought to be important in the college choice process.

Based on the previous research of Chapman (1984), Jackson, (1982), and Litten (1982), the Hossler and Gallagher model (1987) can be identified as a 'combined' model including both econometric and sociological variables and is comprised of three stages: *predisposition, search,* and *choice.*

According to Hossler and Gallagher (1987), predisposition to college is defined as the "developmental phase in which students determine whether or not they would like to continue their formal education beyond high school" (page 211) and is influenced by a variety of student background characteristics. The Chapman, Jackson and Litten models of college choice outlined college choice as a developmental process that begins when students choose to continue their education beyond high school and culminates in the decision to attend college. In their 1987 article, Hossler and Gallagher synthesized this literature into a three-dimensional model that included both individual and organisational influences at each dimension. Their model also provided student outcomes along each dimension, marking students' development throughout their choice process (Hossler & Gallagher, 1987). Hossler and Gallagher distinguish themselves by building upon the existing work of previous scholars to form a comprehensive and accessible model for the college-choice process.

Distinction and definition are major principles underlying the Hossler and Gallagher model. Each dimension, or phase, is clearly understood as containing a set of influential factors on both the individual and organisational levels that end in specific outcomes. The model functions linearly. Hossler and Gallagher (1987) stated that students move toward an increased understanding of their educational options as they seek a postsecondary educational experience.

In a review of research on college choice, published in *The Higher Education Handbook for Theory and Practice,* Hossler, Braxton and Coppersmith (1989) described the three-phase model as having attempted to illustrate how the process of college choice is undertaken and

how it is different for different people. This is in contrast to similar models developed by Chapman and Jackson, who focused on the influences of college choice and how they relate to institutional policy-making outcomes.

MODEL DIMENSIONS	INFLUENTIAL FACTORS		STUDENT OUTCOMES
	INDIVIDUAL FACTORS	ORGANISATIONAL FACTORS	
PREDISPOSITION PHASE 1	Student characteristics Significant other Education activities	College characteristics	a. College option b. Search for other options
SEARCH PHASE 2	Student preliminary College value (i.e. the initial value a student places on a particular college) Student search activities	College and University search activities	a. Choice set b. Other options
CHOICE PHASE 3	Choice set	College and university courtship activities	Choice

Figure 3-4: A THREE PHASE MODEL OF COLLEGE CHOICE
Hossler and Gallagher (1987)

Jackson (1982) identified a similar three-phase model relating to the college selection process and suggests that at any time during the process the student may elect a non-educational route.

Jackson's three phases include *preference*, which involves the initial attitude toward college enrolment; *exclusion*, during which the student forms a choice set and selects potential institutions; and *evaluation*, during which the student critically analyzes the choice set and selects an institution.

Referring to the Hossler and Gallagher Model (Figure 3-4, page 42), the first stage of the college selection process is the *predisposition phase* (Figure 3-5 below). This phase occurs when the student decides whether or not s/he will attend college or discontinue education upon the completion of secondary school. It is also during this stage, which is found to have a direct correlation to college choice by students, that background characteristics are explored by the student (Hossler & Gallagher, 1987). Information about socio-economic background of the student, their parents, peers, and school types are all examples of the background information gathered by Hossler and Gallagher for their study. This stage corresponds to the *socio-cultural environment* and *need recognition* sections in the Schiffman and Kanuk Consumer Behaviour Model (Figure 3-3, page 36).

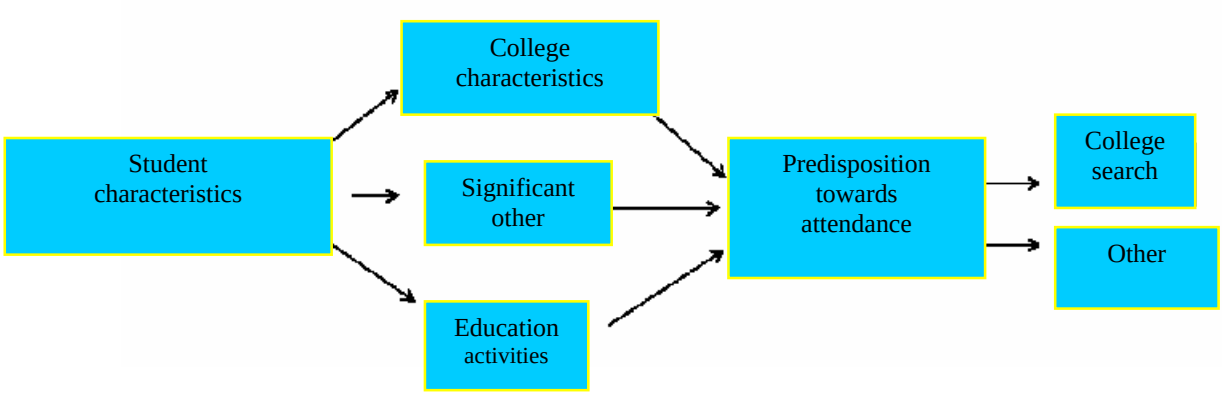

Figure 3-5: PREDISPOSITION – PHASE 1 - Hossler and Gallagher (1987)

Hossler et al. (1989) built on the description of the predisposition phase. They suggest that it is the time when students arrive at a 'tentative' conclusion to persist, or not to persist, with their education after finishing second level education. The inclusion of the word 'tentative' is significant, as it provides the model with more flexibility in its linear direction (Gildersleeve, 2003). Hossler, et al. (1989) also identified twelve variables that research had shown to correlate with a predisposition toward higher education. Identifying these variables gave

further structure to the study of college choice, because it provided an empirical framework for the future design of research aimed at understanding the predisposition phase. Hossler, Schmit and Vesper (1999), extend previous definitions of the predisposition phase to include that point in the process where intervention from significant others like parents or guidance counsellors must happen to ensure that students develop college aspirations (Gildersleeve, 2003).

The second phase (Figure 3-6) consists of gathering information on colleges and universities. Students start to gather information about the colleges and programs that are important for them in the college choice process. This phase, sometimes known as the *search phase*, involves increasing levels of interaction between potential students and educational institutions (Gildersleeve, 2003). During this phase a choice set is beginning to develop, from which the student will ultimately choose the third level colleges/courses they apply to on their CAO form. This phase corresponds to the *pre-purchase search* in the Schiffman and Kanuk Consumer Behaviour Model (Figure 3-3, page 36).

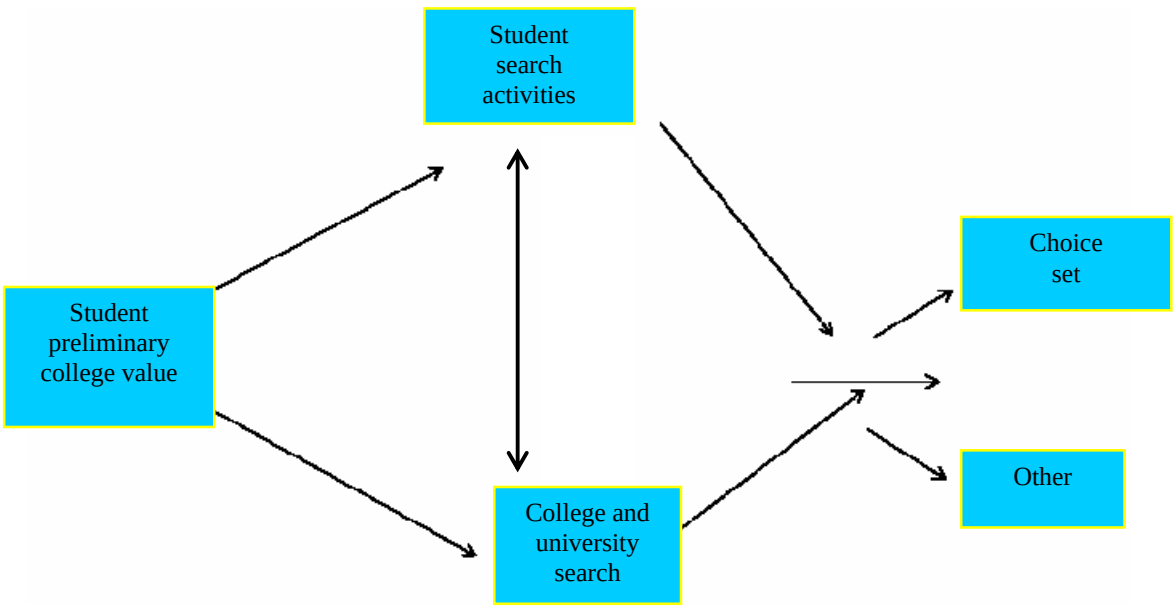

Figure 3-6: SEARCH – PHASE 2 - Hossler and Gallagher (1987)

Hossler et al. (1989) built on the description of the predisposition phase. They suggest that it is the time when students arrive at a 'tentative' conclusion to persist, or not to persist, with their education after finishing second level education. The inclusion of the word 'tentative' is significant, as it provides the model with more flexibility in its linear direction (Gildersleeve, 2003). Hossler, et al. (1989) also identified twelve variables that research had shown to correlate with a predisposition toward higher education. Identifying these variables gave further structure to the study of college choice, because it provided an empirical framework for the future design of research aimed at understanding the predisposition phase. Hossler, Schmit and Vesper (1999), extend previous definitions of the predisposition phase to include that point in the process where intervention from significant others like parents or guidance counsellors must happen to ensure that students develop college aspirations (Gildersleeve, 2003).

The second phase (Figure 3-7) consists of gathering information on colleges and universities. Students start to gather information about the colleges and programs that are important for them in the college choice process. This phase, sometimes known as the *search phase*, involves increasing levels of interaction between potential students and educational institutions (Gildersleeve, 2003). During this phase a choice set is beginning to develop, from which the student will ultimately choose the third level colleges/courses they apply to on their CAO form. This phase corresponds to the *pre-purchase search* in the Schiffman and Kanuk Consumer Behaviour Model (Figure 3-3, page 36).

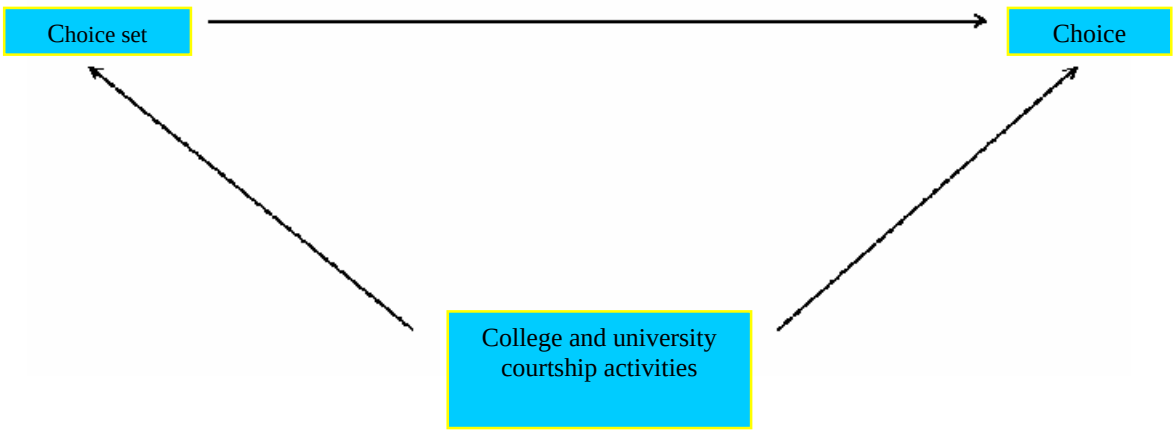

Figure 3-7: CHOICE – PHASE 3 - Hossler and Gallagher (1987)

As a model that combines status achievement and econometric theories, Hossler and Gallagher's *choice phase* focuses largely on the economics of student college choice. After the search phase is concluded, Hossler and Gallagher (1987) maintain, that students progress to the third phase of the college enrolment choice. It is in this phase that students appraise the choice set formed during the second phase.

Discussion of this phase focuses largely on institutional influences and the courtship practices of colleges and universities (Hossler & Gallagher, 1987). In their review of college choice literature, Hossler et al. (1989) found there is insufficient information available about the impact of variables such as gender, peer pressure, school quality etc on the choice stage. "This perpetuates the econometric orientation of the choice phase, which largely ignores the model's potential implications or limitations related to students' cultural capital[1]." (Gildersleeve, 2003, page 6)

The Hossler and Gallagher (1987) model, like the other models of college choice, is developed from the college perspective, and, per se, the main aims of this model have been marketing and recruitment. As Freeman (1997) asserted, it is ironic that models to increase students' ambitions for higher education have generally been based on society at large, ignoring the groups targeted for increased enrolment (Gildersleeve, 2003).

[1] **Cultural capital** (*le capital culturel*) is a sociological term used by the late Pierre Bourdieu (1930–2002). It is forms of knowledge, skills, education and any advantages a person has which give them a higher status in society, including high expectations. Parents provide their children with cultural capital, the attitudes and knowledge that makes the educational system a comfortable familiar place in which they can succeed easily (Bourdieu, 1986).

3.3. CONSUMER DECISION MAKING MODELS

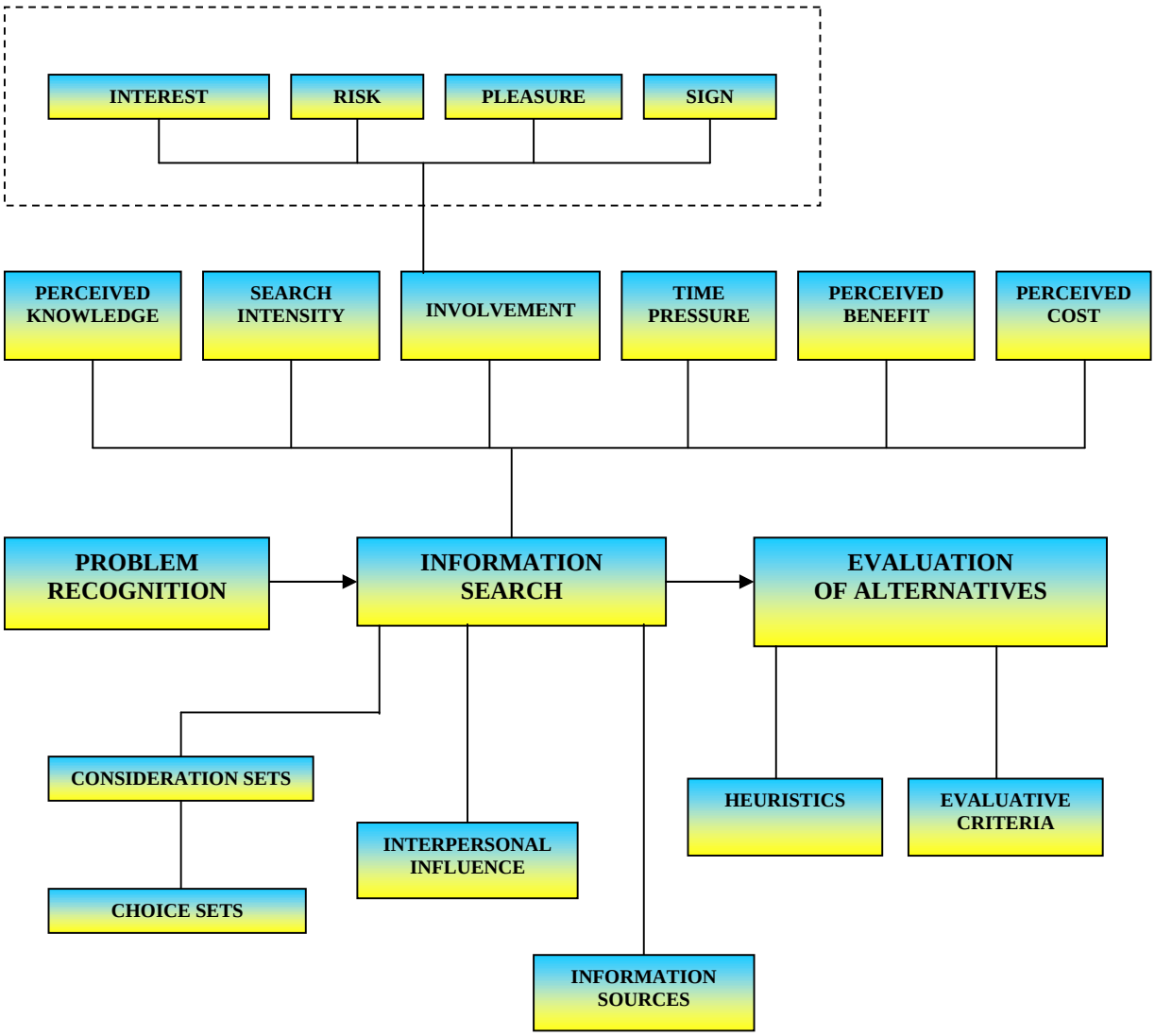

Figure 3-8: THEORETICAL FRAMEWORK

Consumer decision making models are commonly used in consumer behaviour to structure theory and research (Erasmus, Boshoff & Rousseau, 2001). Engel, Blackwell and Miniard (1995, page143) state that "a model is nothing more than a replica of the phenomena it is designed to present. It specifies the building blocks and the ways in which they are interrelated." Models are also described as flow charts of behavioural processes (Du Plessis, Rousseau & Blem, 1991).

This thesis incorporates the decision making and information search process of Leaving Certificate Students choosing third level courses in Ireland. The position adopted for this study is that of a consumer behaviour research perspective. The framework (see Figure 3-8 previous page) is adapted from the and based around the first three stages of the five-stage Consumer Decision Making Process as defined by Sheth et al. (1999) in Figure 3-9 below and the Consumer Decision Making Model proposed by Schiffman and Kanuk (2000), in Figure 3–3 on page 36.

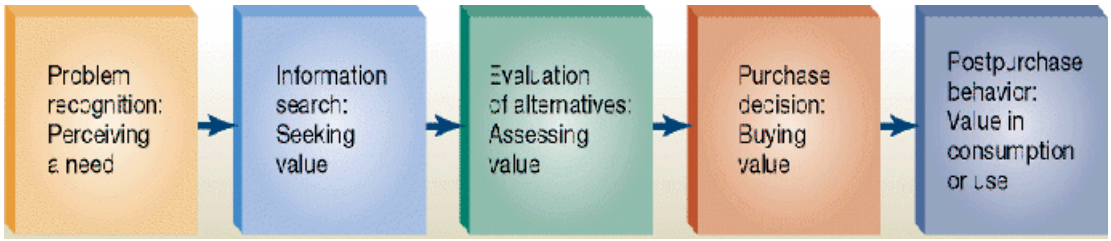

Figure 3-9: FIVE-STAGE MODEL OF THE BUYING PROCESS
Sheth, Mittal & Newman, (1999)

As outlined in Figure 3-9, a foremost component of consumer behaviour is the decision making process used in making purchases. This decision making process according to Sheth et al. includes five main stages: (*1) problem recognition; (2) information search; (3) evaluation of alternatives; (4) purchase; and (5) post-purchase evaluation.* The extent to which each of these stages is followed in the precise form and sequence can vary from one purchasing situation to the next. Some decisions are rather uncomplicated and easy to make, whereas other decisions are complex and difficult. Consumer decisions can thus be categorised into one of three broad categories: routine response behaviour, limited decision making and extensive decision making (Howard, 1977; Brassington & Pettitt, 1997; Loudon & Della Bitta, 1993; Solomon, 1993; Wilkie, 1994). The decision making behaviour of Leaving Certificate Students is extensive decision making given the time spent and the complexity and the variety of the choices involved.

What is being offered to students (a college course) is not a tangible product, but a service (Roberts and Allen, 1997). A service is any act or performance that one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its

production may or may not be tied to a physical product. Services are typically high in experience and credence qualities and can be difficult to evaluate even after purchase and consumption. Furthermore, services high in credence qualities tend to be associated with heightened levels of perceived risk; a characteristic that promotes pre-purchase information search (Murray, 1991).

3.4. FIVE STAGES OF CONSUMER DECISION MAKING MODEL

The five stages outlined in the model and their relevance to the decision making behaviour of Leaving Certificate Students are as follows:

3.4.1. PROBLEM RECOGNITION

The initial point in the models for any purchase decision is when a customer recognises some need or problem. Need recognition occurs when a customer perceives a disparity between an ideal versus the current state of affairs. A multifaceted assortment of stimuli and influences affect the way in which consumers perceive their current state of affairs and their problems and needs. Culture, social class, personal influences, family, reference group, motivation, knowledge, attitudes, personality and values are but a few of the influences that may trigger need recognition. Moreover, as consumers change and progress in life stages, so do their problems and needs.

Problem recognition represents the beginning of a student's decision making process in relation to college and course choice. At this stage the student perceives a need and becomes motivated to solve the problem that s/he has just recognised. Once the problem is recognised by the student, i.e. *what to do post Leaving Certificate and whether or not to continue in education*; if the student decides that s/he wants to go on to third level then the remainder of the consumer decision making process is invoked to determine exactly how the student will go about satisfying the need (Wilkie, 1994). Theoretically, need recognition occurs when the consumer i.e. Leaving Certificate Student identifies a discrepancy between his/her actual and desired state. In other words, for Leaving Certificate students, need recognition occurs when the student reaches the realisation that s/he wants to go to third level after completion of their secondary school studies. Therefore the student will have to go through the third level college application process. However, the presence of need recognition does not automatically

activate some action. This will depend on two factors. First, the recognised need must be of sufficient importance. The need to choose a third level institution and a program of study is an important decision. Second, consumers i.e. Leaving Certificate Students, must believe that a solution to the need is within their means. If need satisfaction is beyond a consumer's economic or temporal resources, for example, then action is unlikely (Engel et al., 1993; Ennew, 1993).

Problem recognition can be triggered by internal or external stimuli. In the former case, one of the students' personal needs increases to a threshold level and becomes a drive. In the latter case, a need is aroused by an external stimulus such as advertising (Kotler, 1997; Wilkie, 1994; Ennew, 1993).

Prospective higher education students in Ireland initially may select a maximum of ten level 8 (higher degree), and ten level 6 and 7 (higher certificate/ordinary degree) courses respectively when they complete their CAO College Application forms (see Appendix C). The courses chosen from each category are listed by the students in order of preference in each case. Applications are assessed and the offer of places is issued independently but simultaneously in respect of each category. Consequently, students are making selections based on the condition of getting the necessary grades and hence entry points for the course(s) of their choice.

A number of studies have found that the decision making process starts early. The first and essential verdict is to stay on in education rather than in effect ruling it out as an alternative (Payne, 2003). This decision is strongly influenced by predispositions and aspirations formed over a long period of time. While the initial decision to stay on in education may be made early, specific plans about courses and third level institutions are generally made at a later date (Stage & Hossler, 1989; Cabrera & La Nasa, 2000; Payne, 2003).

3.4.2. SEARCH FOR INFORMATION

Once a need is recognised, the consumer begins searching for information and solutions to satisfy the unsatisfied need. At a detailed level, the models describe this search as either internal (retrieving knowledge from memory) or external (collecting information from peers, family, the marketplace etc.). Consumers may search actively (e.g. via focused research,

visiting retail outlets, checking out company websites) or passively (e.g. paying more attention to advertisements). The intensity of information search usually depends on the monetary value of the purchase. Information search can be defined as the motivated activation of information stored in memory or acquisition of information from the environment (Engel et al., 1995).

Information search is an important part of consumer decision making (Moore &Lehmann, 1980; Newman, 1977). Most theories addressing the role of search activities in the consumer decision making process assert that search is a means by which consumers reduce uncertainty and perceived risk (Howard & Sheth, 1969). Beales, Mazis and Staelin (1981) provide a general outline of search which classify search as either internal or external.

Internal search, as we have seen, is based on the retrieval of knowledge from memory. That is, internal search does not require any outside source. In contrast, external search entails the acquisition of information from outside sources, such as print advertisements, television or radio advertisements, salespeople, or personal acquaintances. External search is generally defined as the acquisition of information from sources other than one's memory, such as advertisements, friends, point-of-purchase displays, newspaper articles, etc. This research is concerned with the external search for information of Leaving Certificate Students.

Previous research on external search can be grouped into three general categories. Firstly, search has been studied in terms of sources of external information. For example, Beatty and Smith (1987) identified four sources of search information:

1. media,
2. retailer,
3. interpersonal, and
4. neutral

Olshavsky and Wymer (1995) suggest that sources can be classified as:

1. marketer controlled (e.g. personal selling, advertising, information on the package, brochures);
2. reseller information (e.g. catalogs, consultants);
3. third-party independent (e.g. consumer report);
4. interpersonal sources (e.g. friends, acquaintances); and
5. direct inspection of the good by the consumer (e.g. observation, inference).

Secondly, various studies have assessed external search by measuring consumers' external search effort. Some of the more common determinants of search effort are number of shops visited, number of products examined, and time spent in the overall shopping experience.

Thirdly, external search has also been calculated by assessing which aspects of a product consumers will consider when searching, for example price, physical attributes, etc. (Brucks, 1985; Katona & Mueller, 1954; Newman & Staelin, 1971).

External search is a primary means of increasing knowledge, reducing perceptions of risk and uncertainty, and increasing post-purchase satisfaction. Moreover, the amount of external search in which a consumer engages can influence the size of his/her consideration set and whether s/he remains brand loyal or engages in brand switching (Newman, 1977). Thus, there is a great incentive for marketing managers to understand what causes consumers to seek external information when faced with a purchase decision.

Among the antecedents of external search which have been studied to date are product class knowledge (Brucks, 1985), recreational and hedonistic motives (Bloch, Sherrell & Ridgway, 1986), involvement (Houston & Rothschild, 1978), and various situational factors such as cost, time pressure, and store distribution (Beatty & Smith, 1987). While prior research on the causes and consequences of consumers' external search activities certainly provides a substantial knowledge base, almost all of this prior research on external search has been conducted in product contexts, rather than service contexts.

This is important given the evidence that consumers generally view purchasing services as more risky than products and that, indeed, consumers tend to search more extensively for services than for products (Murray, 1991).

Leaving Certificate Students make decisions to achieve certain purposes or to achieve some goals (i.e. which courses and/or colleges to apply to) including which external information sources to employ when information acquisition is necessary to make a decision. The direction and intensity of all these decisions are affected by motivations of individuals because the function of an individual's motives is to protect, satisfy, and enhance themselves (Kassarjian & Robertson, 1968).

The internal information search represents the retrieval of knowledge from memory (Engel et al., 1995). When students realise that they have a need for information, they try to retrieve the information from memory (i.e. they do an internal information search). If the internal information search provides sufficient information regarding a product decision, then external information search is obviously unnecessary (Beatty & Smith 1987). Whether students' rely solely on internal information search will heavily depend on the perceived adequacy or perceived quality of their existing knowledge. If a students' is confident that s/he knows enough about courses and institutions offering them, the student may not utilise any of the available external information sources. This perceived self-confidence may affect the utilisation of external information sources (Brucks, 1985). The prospect of this occurring is highly unlikely as the student will not have prior experience with the 'product', so an external search for information will be obligatory.

Internal information search occurs in the student' memory and relies on their prior experience or expertise (Sheth et al., 1999, 2004). Prior experience refers to the history of purchase and consumption and information obtained with respect to the product or service. The relationship between external information search and prior experience is an inverse relationship; as prior experience increases, less external search occurs. Expertise on the other hand refers to the understanding of the attributes in a product or service, and an awareness of how various alternatives stack up on these attributes (Sheth et al., 1999). External factors relate to influences from outside such as family or teachers or friends. Prospective students'

external information search can be seen as a problem-solving approach that is necessary to facilitate the college choice process. Before embarking on the information search process, the student must firstly realise that it will be beneficial to the process as a whole. They must also be motivated and confident of their ability to solve the problem in question.

Higher education is not only perceived to be an experience good (McPherson & Winston, 1995) and an infrequent purchase, but also a major influence on students' life outcome. Thus, a strong argument can be made for adequate consumer information in higher education (Cave, 1994). Better information is important not only for consumer purposes, but also for producer effectiveness. Information on the quality of a product provides an incentive for producers to invest in quality improvements and thereby better compete in the market. Institutions may produce or publish information about their academic programs that is misleading or not in the interests of prospective students and/or the public in general. Lacking well-founded knowledge about the relative quality of educational courses, students may be forced to spend additional time and money searching for relevant academic quality information (Dill & Soo, 2004).

It is impossible for the student to gain experience of the product in advance (Cowell, 1991; Solomon, Suprenant, Czepial & Gutman, 1985). When services are being purchased, alternatives are often evaluated without the benefit of any direct experience of the product. Students do not have the opportunity to evaluate their college course before 'purchasing'. Since services are associated with greater degrees of intangibility, the quantity and quality of information available to the consumer prior to purchase can be limited. When purchasing a tangible product the consumer can evaluate it prior to purchase. Hence, the information search and evaluation of alternatives is easier than for services.

However, by gaining more knowledge in the relevant areas and increasing the amount of searching, students can feel more confident about making a decision. Hence by asking knowledgeable friends, they can obtain details about experience qualities (Gabbott & Hogg, 1994; Mortimer, 1997; Nagel, 1981; Woodhall, 1989; Zeithaml, 1981). The acquisition of word of mouth information acts as a risk reducing strategy for those embarking on third level education, which by its nature requires a great deal of involvement with the student as

consumer (Friedman & Smith, 1993; Kellaris & Kellaris, 1988; Murray & Schlacter, 1990; Paulsen, 1990; Roberts & Allen, 1997; Saunders & Lancaster, 1982; Stewart & Felicetti, 1991; Zeithaml, Parasuraman & Berry, 1985).

The choice of higher education is considered high involvement, due to its high cost, high personal relevance, variety of alternatives available and time taken to make the decision (Gray, 1991). Involvement has been identified with interest, exhilaration, and enthusiasm for product class, activities, or information. It has also been associated with personal values, ego-involvement, and importance and risk perceptions (Jamrozy, Backman & Backman, 1996). Involvement can be defined as an unobservable state of motivation, arousal or interest toward an activity or associated product (Havitz and Dimanche 1999).

The level of involvement has also been examined on a scale that is high and low at the opposite ends (Engel & Blackwell 1982). There is strong support for the relationship between involvement and information search behaviour (Havitz & Dimanche 1999). When making purchasing decisions, highly involved individuals will go through an extended problem solving process: recognising the problem, actively searching for information, evaluating the alternatives, and then making the purchase decision (Clarke & Russell, 1978). Highly involved consumers are likely to use more criteria (Mitchell 1980); search for more information using available external information sources (Beatty & Smith 1987**;** Venkatraman 1988); use more information sources (Jamrozy, Backman & Backman. 1996); accept fewer alternatives (Petty & Cacioppo 1981); examine the importance of information (Perdue 1993); process relevant information in detail (Celsi & Olson 1988; Chaiken 1980); produce more product related thoughts and make more product inferences (Celsi & Olson 1988); want to know the strengths and weaknesses of possible alternatives in more detail (Maheswaren & Meyers-Levy 1990); and will form attitudes that are more resistant to change (Petty, Cacioppo & Schumann 1983). In low involvement situations, the consumer does not extensively search for information, and rarely evaluates alternatives or choice before making the purchase decision (Engel and Blackwell 1982). The degree of a consumer's involvement, therefore, has an important impact on information processing and decision making (Celsi & Olsen 1988**;** Foxall & Bhate 1993; Maheswaren & Meyers-Levy 1990; Mitchell 1980).

As there is a high level of involvement required to make a college choice it is likely that an external search would be used by students. Bakewell & Gibson-Sweet, (1998) suggested that students make university decisions on incomplete information. This is due to the fact that students are busy with studying for their exams (i.e. Leaving Certificate) which results in the discontinuation of the searching for information.

In addition, as the college choices students make are usually done once (unless they change their mind and complete the CAO 'change of mind form' or they reapply the following year), their search for information is likely to be extensive as the decision is complex. This is supported by (Assael, 1992) who suggests that, buyer decision making processes vary with the type of decision, and that the more complex the decision, the more buyer deliberation.

Third level college choice is one of the most important decisions that needs to be made in a students life with extensive decision making taking place, where a significant level of effort is put into identifying important criteria and moving through the decision making process. Furthermore, if there are widely different alternatives from which to choose, students are likely to get more involved in the decision making process (Wells & Prensky, 1996). However, consumers and therefore students, are not always rational and do not consider all the alternatives. (Foxall, 1980) when suggesting the limitations of decision making models, states that the models assume an unrealistic degree of consumer rationality. Often only an evoked set is considered by students (Blythe & Buckley, 1997) this being a limited number of alternatives.

Information searching has often been compared to a rational problem-solving process, where a gap in knowledge triggers a conscious search for information. This may apply to some situations, but in most cases the information-searching process is dynamic and changeable. It is dependent on the situation and to a large extent on the individual performing it (Solomon, 2002). Some students may plan and structure their searches, while others gather information in a more flexible and impulsive way.

The personal understanding of a student's own knowledge can be underestimated by the student themselves, perhaps without reason, if compared to knowledgeable peers or a highly

regarded authority. Young people may be influenced as much by what they think their peers are doing as by what they really are doing. On the other hand, students who overestimate their own knowledge, may risk seeking too little information and, as a result make their decisions on insufficient grounds (Radecki & Jaccard, 1995).

Information search can be both active and passive. Passive information search, like our reactions to television advertisements, is more or less unconscious (Wilson & Walsh, 1996). Information-seeking behaviour of Leaving Certificate Students is, on the other hand, triggered by a specific need for information, a gap between the present knowledge and the knowledge needed to make a choice of course and college. Components of the information-searching process are the need for information; determination of what is relevant information, the actual information seeking and the use of information (Limberg, 1998).

The uncertainty in the search process often makes the searcher (i.e. student) collect unnecessary information (Solomon, 1997a). Consumers according to Dickinson (1982) may also collect information which has no immediate use. Dickson also suggests that external search is an active process designed to assist the consumer (i.e. student) with a purchase decision and, it can be regarded as goal directed.

Personal interest is a good indicator of how much information people seek (Takemura, 1994). The higher the involvement, the stronger is the search for information. Involvement, moreover, results in seeking out complex and multi-faceted information. The information-searching process is often repetitive and cyclic with false starts, anxiety, assessment and reassessment and perhaps failure and quitting (Solomon, 1997a). Differences in the way we carry out our search depend on the situation and together with the subject or the motive that triggered our search in the first place.

Generally, people, including students, tend to search for information by making the least effort possible. They are willing to put considerable effort into information searching when they perceive the information as important and imperative. The higher the reward level, the more persistent the individual tends to be in his/her information search (Harris & Dewdney, 1994). The most used information sources are generally those which are close by, of high standard,

easy to use, available at low cost and to which the seeker is accustomed (Hsieh-Yee, 1996). Easy access, topicality and relevance are the most important criteria for choice of information (Leckie & Pettigrew, 1997; Shanmugam, 1999).

3.4.2.1. CONSIDERATION AND CHOICE SETS

Students need to decide to which courses and which third level institutions they are going to apply. Once the need has been recognised, consumers (students) will search for information about ways of solving the problem. That rarely includes every brand available (Sheth et al., 1999, 2004). The prospective student must develop a consideration set of third level institutions. Consideration set formation is a fundamental stage of pre-choice decision making (Alba, Hutchinson, & Lynch 1991; Howard & Sheth 1969; Nedungadi 1990; Ratneshwar & Shocker 1991). Consumers often have to create consideration sets when their goals are not well defined. In these circumstances, the contents of a consideration set depend on a combination of two motives. Firstly, consumers prefer to create a consideration set of easy to compare alternatives. It is easier to compare alternatives that have attributes or alternatives that have similar features. Secondly, consumers prefer to create consideration sets that have a high likelihood of containing their best alternative. For example, when the set of available alternatives requires the consumer to make tradeoffs between benefits, the consumer often delays making a decision about which benefits are preferable and the consideration set tends to contain a more diverse set of alternatives (Chakravarti & Janiszewski, 2003).

Consideration set make-up depends on a consumer's screening criteria and screening process. When consumption goals are well-defined, these screening criteria are based on the benefits desired for a particular usage situation (Desai & Hoyer 2000; Nedungadi 1990; Posavac, Sanbonmatsu, & Fazio 1997; Ratneshwar & Shocker 1991). This screening process is typically described by an elimination-by-aspects (EBA) choice rule (Tversky 1972).

Consumers gather information about alternatives from the environment or memory, compare attribute values to cut-offs, and eliminate options that do not meet these cut-offs (Tversky & Sattath 1979).

According to Sheth et al., (1999), customers only consider a select subset of brands in the following way:

- The awareness set consists of those brands (institutions) which the customer (student) is aware
- The evoked set consists of the brands (institutions) in a product or service category that the customer (student) remembers at the time of decision making. The evoked set may also include institutions that the student would not attend. Those considered unfit would be eliminated immediately (Sheth et al., 1999, 2004). These would be part of the inept set (Belonax & Javalgi, 1989, 1998)
- The consideration set is those brands (institutions) which the customer (student) would consider buying (attending) and about which they would search for information.

As previously stated, the higher education choice of Leaving Certificate Students is regarded as being high involvement because of the degree of effort expended in completing the process. Consequently, students' consideration sets are formed over a period of time although they may not contain all possible alternatives. In order for students to be motivated to search for information, they must believe that the information will be possible to acquire and accurate (Moorthy, Ratchford, & Talukdar, 1997); helpful (Duncan & Olshavsky, 1982); and that they will be capable of evaluating it (Maute & Forrester, 1991). Shugan (1980) found that the greater the degree of self-confidence in their ability to meet the demands of the decision making task, the more likely the consumer was to undertake external information search. This is particularly evident in high credence quality services where the decision is deemed to be highly important. Consumers will rely on search and experience qualities to evaluate a product or service unless they are very confident of their decision making capability. Consumers who are not confident of their decision making capability will not seek information relating to the credence qualities of a service (Maute & Forrester, 1991).

Some consumers may have a consideration set containing only one item (Krishnamurthy, 2001). Thus, a student who has the ability to gain access to their first choice institution may not search for information about other colleges.

Consumers can acquire product knowledge from their prior experiences with the product, those of others, and by means of visual, verbal, and sensory stimuli such as advertisements, newspaper/magazine articles, and television programming (Vogt & Fesenmaier, 1998). Prior product knowledge enables consumers to evaluate a product's utility, attributes, and applications. Thus, prior product knowledge enhances one's internal memory and assists in the decision making process (Brucks, 1985). Prior product knowledge also affects the nature of information search and the storage in long term memory (Bettman 1979b). Alba and Hutchinson (1987) examined the concept of prior product knowledge, and they deduced that a consumer's prior product knowledge is made up of two parts; familiarity and expertise. Familiarity refers to the number of product-related experiences that have been accrued through purchase, use, experiences, ongoing involvement and learning. Expertise refers to the capacity to perform product-related tasks. Familiarity represents the early stages of learning and expertise represents the later stages of learning. Expertise is an important construct in understanding information search and information processing behaviours (e.g. Bettman & Park, 1980; Brucks, 1985). The measures of consumer expertise fall into two basic categories. The first is objective knowledge: actual information about the product class that is stored in long-term memory (Brucks, 1985). The second is self-assessed knowledge, also referred to as subjective knowledge: people's perception of how much they know about a product class (Monroe, 1976). Recent conceptual work in consumer knowledge suggests that consumers typically are overconfident, i.e. they think they know more than they actually do (Alba & Hutchinson, 2000). Leaving Certificate Students will not have any prior experience with third level education so they cannot avail of prior knowledge in their decision making process.

Although, self-assessed knowledge has been viewed as a proxy measure for objective knowledge, it has been suggested that the means through which these two knowledge constructs affect search and information processing may be different (Bettman & Park, 1980; Park & Lessig, 1981). Differences between objective knowledge and subjective knowledge occur when consumers do not accurately perceive how much or how little they actually know. Research in subjective probability assessment (Fischhoff, Slovic & Lichtenstein, 1977) and psychology (Dawar & Parker, 1994) suggests that the feeling of knowing and what is actually known often do not correspond, and that consumers may suffer from self-deception (like false expertise). Park, Mothersbaugh and Feick (1994) further pointed out that the nature of the

product or service might lead to an inconsistency between objective knowledge and self-assessed knowledge. For example, the relationship between objective and self-assessed knowledge might be weaker with credence goods like higher education than with search and experience goods, since consumers (i.e. students) cannot easily evaluate the performance of credence goods (i.e. higher education) (Darby & Karni, 1973). This lack of performance feedback for credence goods inhibits learning from consumption experiences. This is in contrast to search and experience goods, where consumers can learn about product performance and benefits through consumption, which therefore should align objective and self-assessed knowledge more strongly.

3.4.2.2. INFORMATION SOURCES AND THEIR INFLUENCE ON COLLEGE CHOICE

Sources of information may be categorised into marketer or non-marketer (Sheth et al., 1999, 2004). Marketer sources come from the marketer of the product or service (i.e. the third level institutions). They include advertising (in secondary schools, television, radio, newspapers etc.), salespersons (college representatives), product/service literature (prospectus), open days and websites. Since these sources have a vested interest in providing biased favourable information they are also known as advocate sources and are seen as having lower credence qualities than non-marketer sources (Sheth et al., 1999, 2004). (See Table 3-11, page 75 for a list of the various sources).

Non- marketer sources are independent of the marketer's or college's control. These include personal sources and independent sources. Personal sources (word-of-mouth) include parents, friends or other personal acquaintances of the student. Independent sources include publications and product or service experts (Sheth et al., 1999, 2004). College guides and career guidance counsellors would be examples of independent sources.

In the 2002/2003 National University of Ireland, Maynooth, 'Annual Survey of Incoming Students', the following conclusions were made:

"With regard to pull factors, results were more evenly spread with five factors – *NUIM literature*, the *University's Open Day*, *information from schools' careers guidance*

counsellors, *encouragement from parents/guardians* and *information about NUIM on the Internet* – responsible for influencing 69 percent of students in their choice of university." (Coughlan, 2002, page 1)

3.4.2.2.1. INTERPERSONAL SOURCES OF INFORMATION

Interpersonal information used by consumers can influence their external search and decision making processes (Ardnt, 1967; Olshavsky & Granbois, 1979, Price & Feick, 1984; Rosen & Olshavsky, 1987; Still, Barnes & Kooyman, 1984) (See Table 3-11, page 75).

In consumer research, interpersonal influence has been conceptualised and used as a multidimensional construct composed of either two or three dimensions depending on the author.

Two-dimensional interpersonal influence is composed of:

1. informational

Pincus and Waters, (1977) refer to informational interpersonal influence as an influence to regard information from others as evidence about reality.

2. normative

They refer to normative interpersonal influence as an influence to conform to some expectations of other individuals through reward/punishment relationship or a desire on the part of the person to identify with the other individuals or their point of view (Pincus & Waters, 1977). It is a combination of utilitarian and value expressive as outlined next.

Three-dimensional interpersonal influence is composed of:

1. informational. This is based on the consumer's desire to make informed choices and reduce uncertainty.
2. utilitarian. It is reflected in compliance with the expectations, real or imagined, of others – referred to as *norms*.

3. value expressive. It stems from a desire to enhance self-concept through identification with others.

(Bearden & Etzel, 1982; Childers & Rao, 1992; Lascu & Zinkhan, 1999; Lessig & Park, 1977 & 1982).

The amount of influence interpersonal sources have on prospective students depends on their susceptibility to interpersonal influence (Bearden, Netemeyer & Teel, 1989). In the creation of their susceptibility to interpersonal influence scale, they confirmed that the utilitarian and value expressive dimensions compare equally on the same factor which can be described as the normative interpersonal influence, therefore providing empirical support to the two-dimensional conception of interpersonal influence (Bearden, et al., 1989, 1990). The CSII scale contains two dimensions: an informational section and a normative section (see Appendix, Section A, for the list of scale items). The informational component measures an individual's tendency to obtain information about products or services by observing or directly seeking information from other people.

The normative component measures:

1. an individual's need to use product and/or brand purchases to identify with or enhance their image in the eyes of significant others (value expressiveness); and
2. an individual's eagerness to conform to the expectations of other people in making purchase decisions (utilitarian).

Bearden et al. (1989) hypothesised that value expressiveness is motivated by a person's desire to reinforce his or her self-concept through referent identification. The utilitarian part reflects a person's efforts to comply with the expectations of other people, in order to attain rewards or avoid punishments, and it operates through the process of conformity. Overall, the normative part measures the degree to which people conform to the expectations of others in order to achieve rewards and avoid punishments.

Consumers must decide which information to acquire when using informational interpersonal information sources. Consumers can ask for two types of information:

1. attribute-value information
2. recommendations

(Rosen & Olshavsky, 1987).

Consumers can use interpersonal information sources to get information on products and their attributes, or delegate their decision and ask the interpersonal information source to recommend the best option.

Price and Feick (1984) empirically found that interpersonal information sources can play one or many of the following roles in the decision making process:

- structure the decision making problem
- offer information to the consumer
- assist in the evaluation and elimination of alternatives
- offer a suggestion in order to choose an alternative,
- endorse the consumer's decision making process

The majority of Leaving Certificate Students will have little or no experience of third level education, so in order to make the best possible choice they will research the educational-market by whatever means available to them. The following are some of the interpersonal sources used by students.

i. PARENTS AND FAMILY

Parental pressure can exert considerable effect on potential college students' decisions, especially if those students are from more wealthy families whose parents already have experienced college (Dahl, 1982; Hearn, 1984). Other research has found the family to be an influence (Hanson & Litten, 1982; Kallio, 1995), and in particular the mother (Kandel & Lesser, 1969). Parental influence on college choice can take numerous forms. Obviously family socio-economic background affects the chances of getting good Leaving Certificate results, which have a major impact on choices. Over and above this, parents have a pervasive

influence in shaping young people's attitudes to education over a long period of time, so that the broad direction of what they will do after finishing secondary school is simply taken for granted. Additionally, parents may give detailed advice at the time that a decision must be made, and they can give help and support of various kinds, including getting information about different options and providing contacts. Some studies report that parents' encouragement and support is the primary factor in the college choice process at the 'predisposition' and 'search' stages but is less important at the 'choice' stage (Cabrera & La Nasa, 2000). Stage and Hossler (1989), claim that parental expectation was the best predictor of the predisposition to attend college for their 9th grade sample.

Payne (2003) reported that parents' role was perhaps the most significant factor in post-school decisions. Walck and Hensby (2003), and Kern (2000) found that the family gave important advice and support in the college choice process. Brooks (2004) found that a majority of those surveyed had got advice from their parents. Boyd et al. (2001) found that parents' are major influences on college choices and Choy, Horn, Nunez and Chen (2000) state that parental involvement was related to an increased probability of attending college for moderate to high risk students.

The general and long-term influence of parents on young people's attitudes to education is established by a number of studies. In a Dublin City University study of incoming students in 1997/1998, 8.5 percent of those surveyed got information from family about college (DCU, 1998).

In the UK, Furlong's (1993) analysis of the 16 year old age group of the 1970 British Birth Cohort showed that parental interest and involvement in the school was associated with positive attitudes towards education on the part of their children, even after controlling for level of attainment (Payne, 2003).

Mortimore (1991) in a literature review of unqualified school leavers in the UK stated that "School pupils are affected by family attitudes towards the value of schooling. In some cases the family (or at least one parent) exerts such a powerful influence that this exceeds that of culture or class." (Mortimore, 1991, page 22)

Kelly's (1989) UK longitudinal study of how young people's career preferences develop found proof of parental influence on career aspirations:

"Fourteen year olds' perceptions of the sort of job their parents wanted them to get were much more strongly predictive of their aspirations at 17 than the children's own wishes at the earlier age." (Kelly, 1989, page 197)

The review in the UK on attitudes to education by Keys and Fernandes (1993) showed that 'lack of parental interest and support were related to early leaving and dropout' (pages 1-44). Keys and Fernandes national survey of secondary school pupils showed a significant link between parental interest and support and young people's attitudes to school. They also found that nine out of ten Year 9 pupils talked to their parents about their career plans 'often' or 'sometimes' and more than two fifths of Year 9 pupils consulted with brothers and sisters, and more than two fifths with other family members (Payne, 2003).

Mann (1988) in a qualitative study of 'A' level students in Britain found that working class parents could still be influential on decisions even when they were not involved in official aspects of their children's schooling:

"Mother-daughter relationships seemed to favour girls' educational achievement in three main inter-connected ways: (a) by emphasising independence, (b) by providing emotional support, and (c) by influencing girls' values." (Mann 1998, page 211)

Parents are also probably the most important source of advice and help when decisions about post-16 routes have to be taken by students in the UK. Maychell and Evans (1998) found in their national survey, that when Year 11 students were asked who they spoke to about their future career prospects, parents were mentioned far more often than either friends, teachers or careers advisers. Taylor (1992) reported that two-thirds of Year 11 pupils said that in deciding on their post-16 options they received most help from their family in making a decision.

Taylor (1992) stresses the importance of families as a source of careers information and guidance:

"The family was the key, and often the single most important informal source of guidance, information and influence... Mothers played an especially instrumental information-seeking role." (Taylor, 1992, page 319)

Taylor (1992) also reported that:

"Siblings' current or recent experience of further or higher education, Youth Training or a job could be a more precise source of information than that of parents." (Taylor, 1992, page 319)

Though parents clearly share in the decision making of students', it is unusual for them to impose their outlook on their children. Foskett and Hesketh (1997) in their national survey of Year 11 pupils asked the following: Who made the choices about post-16 education?

In reply, only 2 percent stated their parents, while more than 75 percent said they made the decision themselves and 20 percent said that the decision was a joint one. While 40 percent of this sample said that their parents had some influence on their choice of post-16 route, fewer than 10 percent said that their parents were the single most important influence (Payne, 2003).

Mangan, Adnett and Davies (2000) also report that few young people in their sample of Year 11 students said that the decision about whether to stay in the school sixth form or move to college had been taken by their parents alone, though two thirds had taken their parents' opinions into consideration when deciding (Payne, 2003).

Macrae, Maguire and Ball (1996) deduced from their qualitative study that:

"Most parents appear simply to oversee their 16 year olds' decisions. Many students talked of being "trusted" by their parents to make sensible choices."
(Macrae, Maguire and Ball, 1996, page 39)

Nevertheless, parental preference ranked low as a factor in both Martin's (1996) and Lilly et al.'s (2000) studies of students. Similarly high achievers rated parents' preference as only 1.7 out of 3 (Keller & McKeown, 1984) and advice of parents rated 2.2 out of 5 (James, 2000).

iii. CAREERS EDUCATION AND GUIDANCE

In the UK, the careers education and guidance offered by professional careers teachers in schools and other careers advisers from outside of school, though helpful to a number of young people, is not generally as strong an influence on choice as family (Payne, 2003).
Macrae, Maguire and Ball (1996) conclude from their qualitative study that:

"For most students, friends and family have a much higher profile and a more decisive role than formal advisers." (Macrae et al., 1996, page 39)

Again, a national survey of students in their last compulsory year rated parents as a more helpful source of careers advice and guidance than either school careers teachers or careers advisers (Connor et al., 1999; Payne, 2003).

Good quality careers education and guidance can increase young people's careers-related skills (Payne, 2003). Morris, Lines and Golden (1998) found that improved provision of guidance in Years 9 and 10 in Britain was associated with improvements in young people's opportunity awareness, research skills and levels of confidence in transition skills.

Kidd and Wardman (1999) review a wide range of research on the efficiency of careers education and guidance, concluding that:

"Substantial evidence exists from US and UK research to show that career education and guidance … affects decision making skills, self awareness, opportunity awareness, certainty of decision making and decisiveness."
(Kidd & Wardman, 1999, page 261)

According to Macrae et al. (1996):

"Careers advisers' major function for many students is as catalysts. It is often not what they say, not any specific advice or information they give, but the sense of urgency or necessity that they instil into the students." (Macrae et al., page 39)

Careers teachers and counsellors probably have more influence on some areas of choice than others. White, Stratford, Thomas and Ward (1996) propose that advice from careers professionals can influence choice of course. Stuart, Tyers and Crowder (2000) put forward that careers education and guidance is not an important influence on A level students, but may be important for others.

A proportion of young people obtain some help and advice from other teachers who are not careers counsellors. In Maychell and Evans' UK national sample of Year 11 pupils, nearly as many students had discussed their plans with a subject teacher as had with a careers teacher, though very few listed a subject teacher amongst their most helpful sources of information and guidance.

Macrae et al. (1996) in their qualitative study states that:

"Teachers hover rather hazily in the background, occasionally having something useful or supportive to say, but for the most part they provide a general sense of 'what's out there' and places to look and find out more." (Macrae et al., 1999, page 39)

Certain teachers tend to be influential in the decision making process. Taylor (1992) states that:

"Young people sought out information and advice from staff that were perceived to be approachable, accessible and supportive, irrespective of whether they had specific responsibility for careers education and guidance."
(Taylor, 1992, page 315)

In a study of incoming students in 1997/1998, 37.4 percent of those surveyed got information from their school about college (DCU, 1998).

iv. FRIENDS AND PEERS

Research has shown that, as well as families, the peer group may also play a major function in decision making about college, affecting aspirations during compulsory schooling (Hemsley-Brown, 1996; Macrae et al., 1996) and during later stages of decision making (Moogan, Baron & Harris, 1999). Roberts and Allen (1997) found that the peer group was the most common source of influence after the young person's family. Over 70 percent of their respondents had discussed their choice of both subject and institution with their friends. There is evidence that such peer group effects may differ with gender. Reay's (1998a) study of college choice found that young women reported discussing choice of college with their friends far more frequently than their male counterparts. On the other hand, while there is obvious evidence that friends and peers are involved in the decision making process, there has not been much research into the means in which these influences are exerted, nor the degree of influence they have on choice.

In a Dublin City University study of incoming students in 1997/1998, 11.8 percent of those surveyed got information from friends about college (DCU, 1998).

v. WORD-OF-MOUTH

Word-of-mouth is a very important part of interpersonal communication. The examination of the *product* is difficult with a service offering because of their intangibility (Murray, 1991). Buildings and facilities may be checked out but the institution, as a product may not be tried out prior to purchase. The primary opportunity for a student to interact with the institution may only be through attendance at an open day (Connor et al, 1999). Open days are persuasive and marketer dominated. Therefore, much of the information acquired through these experiences can be discounted as it is biased. Blatant selling and advertising of the product can pressurise the consumer into making a purchase. Thus, this advertising is often rejected by the consumer in favour of word-of-mouth (Dichter, 1966).

Arndt (1967, page 291) defines word-of-mouth as "oral person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial, regarding a brand, product or service." Students may also be trying to reduce the perceived risk of purchase by seeking social support in choosing their alternatives (Arndt, 1967).

Word-of-mouth communication is estimated to play a role in about four out of five of all consumer decisions (Stern & Gould 1988). This makes it an important source of information in the college choice process. The effects of word-of-mouth communication have been established at different stages of consumer decision making: at the early stage, information search (Duhan, Johnson, Wilcox & Harwell 1997; Fieck & Price 1987; Herr, Kardes, & Kim 1991; Woodside & Delozier 1976), during trial or sampling of products (Bone 1995; Burnkrant & Cousineau 1975; Cohen & Golden 1972; Venkatesan 1966), and then later as an outcome of product consumption (Richins 1983) and as an alternative to complaining when dissatisfied (Watkins & Lui 1996).

The influence of word-of-mouth communication originates from a number of factors. First, consumer recommendations are usually perceived as being more credible and trustworthy than commercial sources of information (Day, 1971). It is common to take for granted that another consumer has no commercially motivated reasons for sharing information (Engel et al., 1993). Furthermore the conversations with friends or family tend to be friendly and can offer support for trying certain behaviours, like for example which course and college to choose. Second, the word-of-mouth channel is immediately bi-directional and interactive which allows for an adapted flow of information to the information seeker (Gilly, Graham, Wolfinbarger & Yale, 1998). The third strength of consumer word-of-mouth comes from its trial attributes. Possible consumers of a product, for example, can acquire product experience by asking somebody who has an actual experience with the product. Here, the student can ask someone who has been to college about their own experiences.

Word-of-mouth is of particular importance to the services sector, for example third level institutions. The typical characteristics of services such as intangibility, simultaneous production and consumption, heterogeneity and the need for the consumer participation results in the fact that suppliers are unable to present the product prior to purchase (Helm & Schlei,

1998; Zeithaml & Bitner, 1996). Services, including those provided by third level institutions, consequently, are high in experience and credence properties that the consumer (i.e. student) can only discover after purchase and utilisation (Zeithaml & Bitner, 1996). Thus, consumers of services (i.e. students) rely to a greater extent on personal communication and the exchange of experiences with other customers (i.e. current or past third level students) since their experiences act as a 'vicarious trial' (Engel et al., 1993). Empirical support for the importance of word-of-mouth when purchasing services is offered by Murray (1991) who found that services consumers prefer to seek information from family, friends and peers rather than promotional sources.

Christie, Munro and Fisher (2004) suggest that the most useful information recognises the fact that decisions are made in complex social networks that function utilising interpersonal or word-of-mouth communication. They found that those who do not have easy access to such information networks may not apply to college because they cannot access important information.

Parents, families, friends, teachers, guidance counsellors are all members of these interpersonal networks (Boyd & MacDowall, 2003; Brooks, 2004). Boyd and MacDowall (2003) found that all members of these networks influence the college choice process. At the senior secondary school level school teachers and career counsellors have the most influence. They found that parents too have a major influence on the decision. Friends and peers of prospective students also considered members of this interpersonal information network. (Boyd & MacDowall, (2003); Christie et al., 2004).

Boyd and MacDowall (2003) found people to be generally very important in the decision making process. Peers accounted for only 75 percent compared with 73 percent of students who considered teachers important and 55 percent who considered family important. Martin (1996) found that friends ranked third out of nine information influences. Whitley and Neil (1998) distinguished between ‘in-school’ and ‘out-of-school’ influences. They suggest that ‘in-school’ information provided by teachers and guidance counsellors was very important, but that peers played a significant role in providing ‘out-of-school’ information, particularly among students from poorer backgrounds.

3.4.2.2.2. OTHER SOURCES OF INFORMATION

Information from advertising and other promotional sources is utilised by students (See Table 3-11, page 75). These sources typically provide a description of product attributes or service benefits (Beales, Mazis, Salop & Staelin, 1981). Official publications such as the UCAS handbook (UK) and university prospectuses are commonly used sources of information by prospective students. Connor et al. (1999) found these publications were used by over 95 percent of students and were also considered the most useful sources of information about colleges. Other commonly used sources of information included information gained from open days or visits to higher education institutions and school/college libraries.

Mass information campaigns like advertising through newspapers, magazines, brochures, television, radio and the Internet are perhaps less helpful than institutions would like. Maxwell, Cooper, and Biggs, (2000) suggest that newspapers, radio and television are not influential on decisions. Connor and Dewson (2001) suggest that students found information from colleges too broad and difficult to understand. Connor et al. (1999) found in the UK that only 22 percent of their large sample used the Internet, 32 percent used newspapers/magazines, and 35 percent used television advertising as a major source of information during the college choice process.

Other studies have focused on the effectiveness of the marketing activities of universities and colleges (e.g. Coates, 1998). Roberts and Allen (1997) found that knowledge about college of secondary school students at the time of their survey in 1997 was no better and, in some cases, worse than they had found at the time of an earlier study in 1988/89. They go on to propose that this may be as a consequence of the increase in communications from higher education institutions' and an increasingly superficial absorption of the media by society. Then again, Jackson (1982) claims that evidence shows relevant information to be difficult to obtain, which will cause students to exclude those colleges, which may be of benefit to them. Similarly, Moogan et al. (1999) propose that the quandary may lie instead with the quality of information produced. The students in their research reported problems in finding clear information on programmes of study and of the university environment in the prospectuses they consulted. This was also the case when, examining the role of information in the college choice process, Ray (1992, page 2) found that the accuracy and quality of college information

provided by the school counsellor "can make the selection process easier, enable more appropriate choices, and instil more confidence in the students to help insure a more successful transition to postsecondary education." In spite of the both intuitive and logical sense of Ray's statement, "[t]he impact of information on student college choice is one variable that has received little attention because it does not easily conform to sociological or economic theories." Nevertheless, "there is good reason to more carefully examine the effects of information" (Hamrick & Hossler, 1996, page 179). An overriding conclusion that can be reached from the current literature on college choice is that there is no standard in the availability of information, help, and support in the college choice process for Leaving Certificate Students and their families.

In summary, Table 3-11 lists the sources of information as discussed in the previous sections that could be used by prospective third level students.

Table 3-11: SOURCES OF INFORMATION

INDIRECT	**EXPERIENTAL**
Newspapers TV/Radio Magazines Journals General advertisements	Open days College visits Trial – classes, courses, other
INDEPENDENT	**DIRECT**
Internet/College website Guides (third level education) Department of Education Newspaper/magazine articles (not adverts) Careers information	Brochures Direct marketing Display stands
INTERPERSONAL	
Family (Parents, siblings) Extended family Friends and/or peers Students already attending the college Students already attending other colleges Past students of the college	Past students of other colleges College representatives Members of a professional body Teachers Career guidance counsellors Development staff

Sources: (Chapman, 1984; Edgett & Cullen, 1991; Dehne, 1993, 1997; Edgett & Cullen, 1992; Hossler & Gallagher, 1987; Kellaris & Kellaris, 1988; Maguire & Lay, 1981; Murphy, 1981; Sevier, 1990, 1994, 1996; Webb & Allen, 1994; Roberts & Allen, 1997; Bredo, Foerson & Lawrsen, 1993; Pugsley, 1998; UK IES, 1999; Moogan, Baron & Harris, 1999; Murray, 1991; Davis, 1977; Hanson & Litten, 1982; Kallio, 1995; Riggs & Lewis, 1980; Reay, 1989; Dahl, 1982; Hearn, 1984; Eusden, Gough, & Whittaker, 1990; Fuller, Manski & Wise, 1982)

3.4.3. PRE-PURCHASE EVALUATION OF ALTERNATIVES

The next stage of the five stage process is the evaluation of alternatives identified during the information search process. Consumers compare what they know about different products and brands with what they consider important before resolving which one to buy. Consumers use new and pre-existing evaluations from memory to select products, services, brands and stores that will most likely satisfy their specific need. Different consumers employ different evaluative criteria, which are again dependent on a wide array of personal and environmental influences (as in the need recognition stage). Consumers often monitor attributes of the product or service (e.g. brand, price, size, quality, fit), but also aspects pertaining to the outlet itself (e.g. consumer traffic, cleanliness and personal attention received).

When evaluating alternatives, belief, attitudes and intentions are considered by consumers. This will then reduce the alternatives to the most suitable options available. Alternative evaluation will also be affected by individual differences, such as motivation, attitudes and knowledge as well as environmental influences. It is likely that potential students base their evaluation on a limited number of important criteria as opposed to looking at all the offerings of the college.

The primary factors that a student may consider at this stage include: course content, type of qualification available, degree progression requirements. The secondary factors include: university reputation, university facilities, entrance requirements, convenience, open days, meeting staff.

Since higher education choice in Ireland is a high risk *purchase*, it is a high involvement decision in which more alternatives are considered in an extended problem solving process.

3.4.4. PURCHASE

The purchase stage consists of two sub-stages and occurs once the consumer has made the decision to buy the product or service. In the first stage the consumer finalizes his/her choice of retailer from the alternatives investigated (or form of retailing e.g. catalogue, direct sales, TV order, Internet, etc.). The second phase involves in-store choices such as dealing with a specific sales person, selecting mode of payment, etc.

Regarding the purchase stage of Leaving Certificate Students, they initially may select up to ten Level 8 (higher degree) and ten Level 6 and 7 (higher certificate/ordinary degree) courses when they complete their CAO College Application forms. The courses chosen from each category are listed by the students in order of preference in each case. Students who have taken the Leaving Certificate examination are allocated points for the results they get in their six best subjects, at a single sitting of the Leaving Certificate. The points awarded depend on the level of achievement in the subject (i.e. grade). The number of entry-level points needed for any course depends on the number of places and the number of applicants for those places so the entry level varies from year to year. Higher points are awarded for Higher-Level papers than for Ordinary-Level papers (OASIS, 2004).

Applications are assessed and the offer of places is issued independently but simultaneously in respect of each category by the Central Applications Office. Consequently, students are making selections based on the condition of getting the necessary grades and hence entry points for the course(s) of their choice.

Entry requirements for overseas students are determined individually by each institution and are generally based on national examination performance and English language aptitude. The closing date for applications from Irish and other European Union nationals is the 1st of February each year. The deadline for applications from non-EU applicants is the 15th of December of the preceding year. Decisions on offers of places are normally taken in August and September, after the results of the Leaving Certificate are published (OASIS, 2004).

Students must also satisfy the entry requirements of the various colleges. The minimum entry requirement for the University of Limerick and the universities that are part of the National University of Ireland (NUI) is six subjects, including English, Irish and a third language. In two of these subjects, students must have achieved Grade C at Higher Level. For Trinity College, students need a minimum of six subjects, with Grade C on three Higher-Level papers and a pass in English, maths and another language. Students applying for courses in Dublin City University must have six Leaving Certificate subjects, with a Grade C on two Higher-Level papers and a pass in maths and either English or Irish (OASIS, 2004).

Entry to courses in Institutes of Technology generally require a minimum of Grade C in two subjects at Higher Level and Grade D in four other subjects, including maths and Irish/English, for Degree courses and five Grade Ds, including maths and Irish/English, for Certificate and Diploma courses (OASIS, 2004).

Colleges of Education require a minimum of three Grade Cs on Higher-Level papers, including Irish, and three grade Ds, including maths and English (OASIS, 2004).

3.4.5. POST-PURCHASE STAGE

Once the consumer has made their purchase the post-purchase stage begins. In the Consumer Decision Process model of Blackwell, Miniard and Engel, it is described in three stages which in effect are similar to stage five in the Sheth et al. model. The *consumption* stage occurs when the consumer takes possession of the product and starts using it. Following the consumption stage, the consumer engages in the *post-consumption evaluation behaviour* whereby s/he experiences a sense of satisfaction or dissatisfaction with the product or service. These outcomes are stored in memory, fed back to other members of the social group and relied upon in future purchasing decisions. The final stage is *divestment.* The consumer decides to dispose of, recycle or sell the product.

3.5. LEAVING CERTIFICATE STUDENTS' PREFERENCE CRITERIA

The factors discussed in this section are the attributes of third level institutions some or all of which may influence the decision making process of Leaving Certificate Students.

3.5.1. PRODUCT

Here the focus is on the *product* which Third Level Institutions are *selling* to the Leaving Certificate Student (which in their capacity as consumer is *purchasing).* Licata and Frankwick (1996), Roche (1994) and Stewart (1991) have used the term *product* to refer to the set of factors that make up the third level institution. The *core product* offered by third level institutions is made up of the following factors:

3.5.1.1. COURSES

Courses offered by the institution can influence a student's decision regarding where to study (Edgett & Cullen, 1992). Soutar and Turner investigated the importance of various attributes in choice of universities of school leavers. Of the four most important determinants of university preferences for Western Australian school leavers, that they identified, course suitability was number one. They concluded that:

> "The development of university preference is a complex process and, while students' final preferences may be determined by the most important attributes (course suitability); they do consider other factors when making judgements." (Soutar & Turner 2002, page 43)

Type of course is the most important factor students look for when choosing a college according to the following authors: Erdmann, 1983; Saunders, Hamilton & Lancaster 1978; Taylor, 1994; Walker, Cunnington, Richards & Shattock, 1979; Discenza, Ferguson, & Wisner, 1985.

The UK Institute of Employment Studies (Connor et al., 1999; Tackey & Aston, 1999) surveyed over 20,000 students applying for entry to a full-time undergraduate course to a UK third level institution in 1998. For the population included in this research, the most important factor when choosing a university was the course.

Lin (1997) investigated the reasons for students' choice of an educational institution in The Netherlands. One of the most significant reasons for a student's choice of institution was the type and quality of course offered.

Claffey (2001) in her survey of Irish Leaving Certificate Students asked respondents whether college or course was the most important factor when deciding whether to attend a third level institution. Approximately 24 percent chose course as their main preference. Course was also the most popular reason to attend third level across social class of student, especially for those whose parents came from higher and lower professional jobs respectively and those whose parents had white collar jobs.

Murphy (2003, page 108) in her report on University College Cork Access Programme linked schools, found that in relation to progression to Colleges of Further Education "the major theme identified related to programmes of study offered." She goes on to state that "with regard to Colleges of Further Education the range of courses on offer appears to be the strongest factor influencing the rate of transfer." (Murphy, 2003, page 128).

Research on 700 CAO applicants commissioned by Forfas, on behalf on the Expert Group on Future Skills Needs, and presented by the MRBI, was undertaken in 2002. One of the significant findings of the study was that students rated interest in the course offered by the institutions and career as higher than any other consideration, including job availability and earning prospects (Forfas, MRBI, 2002).

In 1997/98 Dublin City University (DCU) carried out a short attitudinal survey of undergraduate entrants to DCU. Forty five percent stated that their main objective in attending college was career with an additional 24 percent stating that education was their primary goal. These results suggest that ultimately it was the *course* on offer that was a significant determining factor in the respondents' choice to attend DCU (DCU, 1998).

In the 'Annual Survey of Incoming Students' carried out by NUI Maynoooth, "the survey sought to elicit the reasons that influenced students' choice of National University of Ireland, Maynooth as a place to pursue their studies and to evaluate current recruitment policies. The

quality of courses, easy access to home, range of courses and *size/personal atmosphere* are the reasons or pull factors that most influenced students' choice of NUIM. These four reasons were primarily responsible for the choices of 69 percent of students." (Coughlan, 2002, page 1)

In Ireland, a number of trends are apparent over recent years. Firstly, third level institutions are offering more degree places each year to satisfy students' desire to achieve this level of education. Since 2002 the number of degree places offered thought the CAO increased by 4,183 to 25,275, while the number of Cert/Diploma courses dropped by 3,003 to 12,521, giving an overall increase of 1,180 places (Mooney, 2005b).

In 2005, "most students will be offered a degree programme of study, due to the recent introduction of the new structure of awards by the National Qualifications Authority, Honours Bachelor, Ordinary Bachelor and Higher Certificate awards at levels 8, 7, and 6 respectively." (Mooney, 2005b, page 1).

"The second trend evident in the pattern of applications is that there is an ongoing increase in applications to prestige courses such as medicine, physiotherapy, architecture and pharmacy. Unless there is an increase in places in these courses, as has occurred in pharmacy in recent years, the only result will be more disappointed students." (Mooney, 2005b, page 1)

Comparing the application and acceptance numbers for science and medicine courses can show a more accurate picture of this problem. In 2004 8.5 percent of applicants selected science as their first choice, but 14.5 per cent eventually accepted a place in a science degree programme. Conversely, 4 per cent of applicants choose medicine but only 1.2 percent of students were eventually offered a place (Mooney, 2005b).

3.5.1.1.1. COURSE AVAILABILITY AND FLEXIBILITY

The availability and flexibility of courses can influence a students' choice of third level institution. Availability and flexibility supplement the product on offer. Institutions offer a set number of courses with a set number of places. Students' choose a course that they are interested in and that is related to their future career. Some courses may only be available to a select number of students and also may require certain entry requirements. So, a student may want to do a particular course in a particular college but may not be able to do so.

Therefore they may apply for the same course in a different college. Therefore, availability may not necessarily be part of the product but it may be part of the students' decision process.

The flexibility of a course may include part-time study options, online study and night classes. Some colleges are more flexible than others and as a result may attract students looking for this factor. For example, working people, mature students, graduate students (Webb & Allen, 1994).

University College Dublin is such a college. It has introduced a programme termed 'UCD HORIZONS'. This is the name given to the new structure for taught degrees at UCD from September 2005. The UCD Horizons programme is *modular* and *credit* based.

"A modularised degree programme is where the individual subjects are sub-divided into discrete packages of learning called modules. Modules can be combined in a number of different ways to make a degree programme, which gives more flexibility in terms of developing new and interesting subject combinations for degree programmes. As all modules have a credit value, getting a degree is based on the principles of credit accumulation, which means that a students' pace of study has the potential to be tailored to individual needs." (UCD, 2005)

3.5.1.1.2. COURSE ACCESSIBILITY AND VARIETY

Students may not be able to access the product due to factors such as the competitive nature of the Leaving Certificate and familial factors like the cost of living away from home. Processes that facilitate accessibility might include such issues as access to academic staff and staff student ratios (Welki & Navratil, 1987; Edgett & Cullen, 1992). In addition, there may be considerations of class size and the number of students who attend the institution, which determines the level of access that students have to the academic programs (Cook & Zallocco, 1983; Discenza et al., 1985).

In addition, the variety of courses on offer may attract students to a college because more is on offer. Students may apply to colleges with a limited number of courses on offer or colleges with many courses on offer. In Ireland, a student may not be able to get a place for

example, on a business course in University, but they could apply for a similar course in an Institute of Technology and transfer later to their University of choice thus satisfying their original need.

3.5.1.2. REPUTATION

An institution's reputation is made up of its entire set of activities including courses, facilities and staff (Vining, 1993). Yavas and Shemwell (1996) referred to reputation as the students' perceptions of an institution which creates the image. An image is a total perception of an object which is formed by processing information from various sources over time. These sources include word-of-mouth, past experiences and marketing communications. Image represents the stimulus value of an object for an individual and consists of core and peripheral attitude (Yavas & Shemwell, 1996).

Lin in his 1997 survey of Dutch students found that the reputation of the third level institution was an influential factor in choice. A higher education institution, like any other business institution, needs to satisfy its clients in order to survive in business. It has been shown in various research (for example, Taylor & Cronin 1994; Oliver 1997), that a customer with a positive attitude towards a business, engages in positive word-of-mouth communication which affects the bottom line of the business. The core service of a higher education institution: teaching is an intangible service (McDougall & Snetsinger 1990). Intangibility, the lack of physical evidence for a service, forces a consumer to rely on sources of information like word-of-mouth recommendations to arrive at a purchase decision (Webster 1991). Research in the UK has shown that reputation of the institution is important to prospective students (for example: league tables, recognised name or department, "old" red brick universities in comparison to new" universities) (Moogan et al., 1999). It can be concluded that an institution with a good reputation will attract students.

Soutar and Turner (2002) identified academic reputation as the second most important determinant of university preferences for Western Australian school leavers.

Nguyen and Le Blanc, (2001) report, institution image and reputation extensively influence students' choice of higher education. Krampf and Heinlein, (1981) found that most universities are oblivious of their image in the eyes of consumers, to whom they are aiming.

Farrell (forthcoming Dissertation) found that 'reputation still has an impact on college choice.' She states that students having the points and means to attend would choose a University over an Institute of Technology even if both colleges offered the same course. Farrell also suggests that reputation is an important indicator of the quality of a college.

In a survey of secondary school students carried out by Claffey, (2001), students were asked whether college or course was the most important factor when deciding whether to attend a third level college. Approximately 76 percent of students surveyed nominated college first, while the remaining 24 percent indicated course was of primary importance. She found that three very important factors considered by students when selecting a college were course type (24 percent), location (20 percent) and academic facilities (15 percent). Other factors influencing respondents included future career prospects, friends attending the particular college and the practical content of courses offered (Claffey, 2001).

3.5.1.2.1. ACADEMIC REPUTATION AND PRESTIGE

Students select their third level institution because it has a good academic reputation (McDonough, 2004; Hooley & Lynch, 1981). Murphy (1981) found academic reputation and quality to be most important in a study of the roles of parents and students in the college choice process. Manski and Wise (1983) include "quality of school" (as measured by the average combined SAT score of incoming freshmen) as being important. Anderson (1976) and Erdmann (1983) found academic quality to be influential in the college choice decision process. Institutions that have a reputation for academic excellence can expect an increased capacity to attract high academic ability graduate students and prospective students to the institutions (Grunig, 1997). Academic standards were found to be an important in the college choice of Dutch Students (Lin, 1997). Turner (1998) found that international recognition of the university's program was important to students' choice of university.

The research of Barnetson (1997), Goldberger, Maher and Flattau (1995), Martin (1996) and Sax, Astin, Korn and Mahoney (1995), indicated that the academic reputation of an institution and the quality of academic research carried out there creates institutional benefits. For example, a graduate program whose faculty actively engages in research is likely to achieve a more favourable reputation and therefore attract greater numbers of prospective students. Kallio, (1995) stated that the quality of education and academic environment characteristics are factors having the greatest influence on the decisions to enrol or not at an institution. Students also see academic reputation as leading to more job opportunities for them (Freeman, 1999).

Trinity College Dublin has one of the best academic reputations in both Ireland and elsewhere. The College is rated by the EU as the number one research institute in Ireland in terms of citations. Producing over 1900 publications annually it enjoys an honoured reputation in research and innovation. Trinity has a very distinguished research reputation world-wide, and was awarded over 135 information technology research contracts in the EU 4th framework. (Sharpe & Wade, 2004).

The quality of the staff in a third level institution is a part of academic reputation and may influence students' choices regarding which college to apply to (Coccari & Javalgi, 1995). Lin (199) found that faculty qualifications were an important factor in choice of college. Turner (1998) undertook a study of business undergraduates in Edith Cowen University to determine their reasons for choosing to enrol at a particular university. Students rated the standard of teaching among other factors they deemed to be important on their choice of university.

Prestige is also a part of the reputation of an institution (Edgett & Cullen, 1992). Prestige is associated with selective admission processes (Chapman, 1984). The products of an institution are ambiguous and difficult for consumers to evaluate (Fombrun, 1996; Litten 1986). Reputation sets consumers' expectations, which in the case of universities includes parents' and students' expectations (Fombrun, 1996). Moreover, reputation is critical to marketing the products of knowledge-based sectors such as third level institutions (Fombrun, 1996). Since rankings are one indication of institutional reputation, they can assist consumers

in evaluating an ambiguous product (Litten, 1986). Rankings may be important for providing emotional satisfaction for a significant, but indecisive, decision about college (McDonough, et al., 1998).

As already mentioned on page 78, Mooney (2005) stated that there is an ongoing increase in applications to prestige courses such as medicine, physiotherapy, architecture and pharmacy in Ireland (Mooney, 2005b).

3.5.1.3. ADMISSIONS REQUIREMENTS

The admission criteria applied by the institution influences students' choices (Chapman, 1984). Highly competitive and capable students will make sure that they have the qualifications required to gain a place in college (James, R., G. Baldwin, et al. 1999). Conversely, students who are not high achievers academically may consider a college where getting a place on a course is less difficult (Hughes, 1994).

Claffey (2001) found that 10 percent of students from the School of Science in Athlone Institute of Technology chose that college because of the low points requirements for entry. A further 26 percent from the School of Business Studies, Management and General Studies again chose AIT due to the low points requirements. Sixteen percent from the School of Engineering stated that it was the only college they could gain access to, due to the comparatively low points which they needed to gain entry.

3.5.1.4. STUDENT TYPE

The type of student attending the third level institution may influence the choice a prospective student makes. Venti and Wise (1982, 1983), Fuller, Manski and Wise (1982) and Tierney (1983) argue that individuals apply to institutions where their academic ability more closely resembles that of the present student body. Cook and Frank (1993) found that as student quality rises, so does the reputation of the institution, which in turn makes it easier to attract high-ability students. Litten and Hall (1989), in a survey of high school students, found that students often judge college quality on the basis of the achievements and profile of the current student body.

3.5.1.5. TYPE OF COLLEGE

Soutar and Turner (2002) consider the type of institution is a factor considered by students when choosing a third level institution at which to study. Tonks and Farr, (1995) found that students are choosing institutions in their home region and at the sector level, polytechnics were predominantly effective at attracting students from the direct locality.

Clancy, (2001, page 156) found in his study of entrants to third level in Ireland that:
"Forty-eight percent of entrants were admitted to the Institutes of Technology, with a further forty-five percent admitted to the university sector. Three percent of entrants were admitted to the Colleges of Education, while a further four percent were admitted to the heterogeneous 'Other Colleges' sector…. Technology was the field of study which enrolled the largest percentage (26 percent) of new entrants. More than a fifth (21 percent) was admitted to courses in Commerce, with a further seventeen percent in the Humanities and twelve percent entering courses in Science… Fifty-five percent of new entrants were enrolled on degree level courses with the remainder on Certificate or Diploma level programs."

Ivy, (2001) found that *old* and *new* universities used differing marketing approaches to differentiate their images. The findings showed that the old universities were very product orientated with high associations to top quality teaching, research output, range of courses offered and staff reputation. This was drastically different to the new universities where strong emphasis was placed on the selling of their institutions using sports facilities, students' union facilities and use of the World Wide Web.

Claffey (2001) found that the most popular choices of colleges amongst students were Dublin Institute of Technology (17 percent), National University of Galway (15.8 percent), and Athlone Institute of Technology (14.3 percent).

3.5.2. COSTS

In Ireland there are no tuition fees for third level education. However, there much debate regarding the reintroduction of tuition fees in the future. Despite the absence of fees, there are *costs* associated with attendance. For example, there is a registration fee for those who do not receive a grant. Plus there is the cost of living while studying.

In the UK, the Institute of Employment Studies conducted research which showed that cost was a significant factor in the choice process of the location of university. It encouraged students to consider choosing a university close to home (Connor et al., 1999; Tackey & Aston, 1999).

The Union of Students in Ireland (USI) has revealed that the cost of attending college per student has risen to approximately €7,000 per academic year when the college registration fee is taken into account. USI research carried out in colleges around the country shows that:

- a total of 74 percent of students surveyed would choose a college adjacent to their home
- 63 percent said that their choice of college and course would be determined by financial reasons
- more than half the respondents (51 percent) stated that they intended to finance their study by obtaining part time employment (Guilfoyle, 2003).

The Student Services Charge increased by a further €80 to €750 in 2004. According to the latest figures from DCU Student Services, the monthly cost of attending college and living away from home is €875, up from €863 in 2003 (DCU, 2004).

The Union of Students in Ireland gives slightly lower monthly averages in all categories because its "Cost of College Survey" is nationwide. The union suggests a monthly national average of €683.12 for a student living away from home (USI, 2002).

In addition, the maximum higher education grant for a student living away from home is still less than forty percent of the estimated cost of living for the eight months of college (Kehoe, 2004). Students who qualify for a grant may have to factor in the cost of a loan to cover them while they wait for the grant to arrive – there is usually a two-month time lapse between the start of the academic year and the arrival of the grants cheque.

In the Organisation for Economic Co-operation and Development (OECD) Report (2004) entitled: "*Review of National Policies for Education: Review of Higher Education in Ireland,"*

it is recommended that the Irish Government reintroduce fees for students attending third level. The OECD report recommends a targeted (means tested) grant scheme for lower income students, and the introduction of a student loan system (Brenner et al., 2004). The report claims that the free fees system has not led to any change in the social class profile of students. This is echoed by Clancy and Wall (2000). They show that entrants from the higher professional group constitute 10.1 percent of the total third level intake, although the same group represents little more than 5 percent of the national population. In contrast, entrants from unskilled socioeconomic backgrounds account for little more than 3 percent of the annual intake, while the group makes up over 8 percent of the national population. The net point to be emphasized, given the Irish experience is that the abolition of fees, at third level will not in isolation solve the problem of under representation of certain socioeconomic groups.

The cost of an average four year course should fees be re-introduced according to the Union of Students of Ireland would be: €11, 898 per year. Even without tuition fees in Ireland, socioeconomic status still impacts on college choice and attendance (USI, 2004).

Socioeconomic variables such as parental education levels, parental occupations, and family income have been found to be strongly related to college choice (Hearn, 1984, 1988). In the USA research from the 1960's to the present documents the effect of family income on students' college choice. An early study, based on a comparative socioeconomic analysis of 18,378 prospective college students, found that students from higher income homes were more likely to have given major consideration to the social opportunities available, and they were also relatively more concerned with developing their intellect while students from less affluent homes were more concerned with vocational and professional training (Baird, 1967). Later, based on statistical analyses of the collegiate options considered by more than one-half million high school seniors in the eastern third of the USA, Zemsky and Oedel (1983) concluded that, "... the patterns of college choice are stitched deeply into the social and economic fabric of the nation" (page 44). Further, Flint (1992) reported that, "Of the background characteristics, father's education and family income exhibit the strongest effects, such that higher levels of education or family income are associated with higher levels of selectivity, degree offerings, and greater distance from home" (pp. 702-703). Chapman (1981) found that students of different socioeconomic statuses enter higher education at different rates and they attend

different types of colleges and universities. Family income, an aspect of socioeconomic status, interacts with institutional cost and financial aid, to limit what students believe are their options. Upper income students tend to prefer private universities, middle income students prefer state universities, and lower income students often prefer community colleges or state colleges. Socioeconomic status serves as a backdrop that influences attitudes and behaviours that are related to college choice.

3.5.2.1. COSTS AND SOCIO-ECONOMIC BACKGROUND OF STUDENTS IN IRELAND

In Ireland, Clancy (2001) researched the socioeconomic background of higher education entrants nationally. An important aim of this study was to examine the social background of entrants to higher education from the 1998 college entry cohort. Clancy examined three main characteristics of parents of higher education entrants; principal economic status, socio-economic status and social class.

The study found large differences between socio-economic groups in levels of participation in higher education. Fifty-eight percent of higher education entrants came from four socio-economic groups, (Higher Professional, Lower Professional, Employers and Managers, and Farmers). On the contrary, the other six socio-economic groups (Non-Manual, Manual Skilled, Semi-Skilled, Unskilled, Own Account Workers and Agricultural Workers) were seriously 'under-represented' with 41 percent of entrants coming from these groups. The Higher Professional group was most strongly represented in higher education (Clancy, 2001).

Referring to social class, with only one exception, the higher the social class the higher the participation ratio. Two social classes were 'over-represented': Professional Workers and the Managerial and Technical class. The study also found that the more prestigious the sector and field of study, the greater the social inequality in participation levels. The Higher Professional and Employers and Managers groups had their strongest representation within the university sector, while students from the Manual Skilled, Semi-Skilled and Unskilled had their lowest representation in this sector. The three manual (Skilled, Semi-Skilled and Unskilled) groups, the Other Agricultural and Own Account Workers groups have their highest proportionate representation in the Institute of Technology sector (Clancy, 2001).

The distribution of financial aid is associated to the socio-economic background of entrants. The groups with the highest percentage of students in receipt of financial aid were the Unskilled Manual (78.6 percent) and the Agricultural Workers group (75.6 percent). In contrast, only 13 percent of the Higher Professional group and 18 percent of the Lower Professional group were in receipt of financial aid. The distribution of financial aid amongst the Farmers' group was related to the farm size (Clancy, 2001).

Clancy's study was the first survey to be carried out after the abolition of tuition fees for the vast majority of undergraduate students. The main exception related to those students who attend private colleges. With the elimination of tuition fees for the majority of students his analysis of the pattern of financial aid focused on the receipt of means-tested maintenance grants (Clancy, 2001).

The OECD (2004) reported that regardless of the immense expansion in student numbers and the introduction of student grant schemes in 1968, great disparities continued to exist in the participation of students from families of different socio-economic backgrounds. This did not alter drastically after the abolition of tuition fees for undergraduate studies in 1995/96. The take up a rate in higher education remained highly dependent on socio-economic background. While individual Universities are undertaking initiatives to remedy the balance it is the case that students from disadvantaged backgrounds find their way more easily to and through the Institutes of Technology. Failure-rates in the first years of study in the I.T. sector are, however, relatively high and considerably more than in the Universities. Completion rates differ very much between sectors. They are comparatively high at Universities: according to an HEA study of 2001 83.2 percent obtained the degree on the course on which they had initially embarked and the drop-out rate from universities seems to be only 10 percent (Morgan, Flanagan & Kellaghan 2001). Non-completion is significantly higher at the institutes of technology where about one third of students leave without finishing their courses successfully. The I.T.s', however, take more young people from disadvantaged backgrounds and failure is highest in the first year of study at certificate and diploma level (Brenner et al., 2004).

Outside of Ireland, empirical studies have found that income has a positive effect on student demand for higher education (Spies, 1973; Venti & Wise, 1983; Becker, 1990; Shim, 1990; Rouse, 1994). Savoca (1990) & Weiler (1994) found that family income has a positive effect on the probability of a student applying to college. Other studies have implied that family income may affect the types of institutions chosen by students. McPherson and Shapiro (1998) suggested that there is a growing gap in the four-year college participation rates of students from low and high-income families, with students from lower-income families increasingly attending two-year colleges. Doyle and Cicarelli (1980) found that family income has a negative effect on student demand for public four-year institutions, and DesJardins, Dundar and Hendal (1999) showed that students from low and medium income families are more likely to apply to a particular four-year college than students from higher income families.

3.5.2.2. THE POINTS SYSTEM AND SOCIOECONOMIC BACKGROUND OF STUDENTS IN IRELAND

Farrell (forthcoming Dissertation) states that:

"The most influential factor on college choice according to the participating Leaving Certificate Students is the points system. The more points achieved in the Leaving Certificate the more options the student has in terms of college choice."

The number of new entrants to third level education has increased significantly over the last thirty years (Clancy, 1995). This seems to show that the points system, as a selection mechanism for entrance to third level education, is efficient and just. The Points System seems to be working well for third level institutions. As the number of places in higher education have not increased in proportion to demand, the points system is practical for colleges in determining the allocation of places. Despite the rise in the numbers entering third level education the social profile of entrants has not changed significantly over the years (Clancy, 1995). A higher income means that upper and middle-class parents can afford extra educational resources including grinds and extra tuition that aid higher points attainment. Access to superior resources helps enhance student skills and boost student confidence and expectations. Middle class parents can also choose fee-paying secondary schools that are more focused on results and which have high transfer rates to third level education, mainly

universities. The upper and middle-class can therefore manipulate the Points System to achieve the required results (HEEU, 1998).

Low-income, unemployment or poverty are significant obstacles to equality of access to higher education. (Clancy, 1998 page 80).

In essence, socio-economic groups like the unemployed, working class, Travellers, mature students and low-income groups cannot compete with upper and middle class students on an equal footing in the Points System, as the baseline for competition is not even. Lone parents, Travellers and people with disabilities have unique sets of barriers to overcome in accessing higher education but these are compounded by lack of money. The competition inherent in the Leaving Certificate and Points System, to determine access to scarce resources i.e. higher education places, tends to always favour those with money. As a result those most in need of the benefits which education can bring are cut off from these benefits due to factors that include unemployment, poverty, lack of an educational tradition within families and areas in which they live, and experience of discrimination through the operation of the educational system and especially through the Points System. The effect of the Points System is to reflect, reinforce and perpetuate the marginalisation of lower socio-economic/class groups who are already disadvantaged and marginalised in and by society. The Points System does not favour low-income groups (HEEU, 1998).

3.5.3. FACILITIES AND AMENITIES

Facilities available in colleges can influence the decision. These include sporting, academic and social facilities. These are not the main activities of an institution (which is teaching). They simply add to the product offered by the institution.

In the USA, academic facilities are an integral part of the service provided by the institution. They include libraries, computers, class rooms, lecture theatres. (Webb, 1993; Webb and Allen, 1994)

Non-academic facilities are those parts of the institution which may be considered peripheral to the service offered. Examples of these are parking, shopping, sports facilities, disability

facilities, childcare and dining facilities (Coccari & Javalgi, 1995; Discenza, Ferguson & Wisner, 1985).

Discenza, Ferguson, and Wisner (1985) surveyed American students about the importance they assigned to various factors in selecting a university. Medium to least important were facilities- related variables like 'location', 'housing facilities', 'social/cultural/entertainment activities', 'athletic facilities' and 'dining facilities'. Roberts and Higgins (1992) questioned students who had studied at the universities for a year and found the most criticised aspects of their university were 'poor facilities', 'housing/accommodation', 'buildings/site', 'Students' Union', 'overcrowding', 'social/sports', 'security and lighting', 'canteen' and 'split site'. The best-rated facilities-related aspects included 'environment', 'academic facilities', 'sporting facilities' and 'Students' Union'. For first-year students the availability and quality of accommodation was found to be of high importance, and as such should be an important part of the marketing mix when recruiting students.

Research in the UK by the Institute of Employment Studies showed that factors relating to the facilities on offer at a university which were rated as being important were the 'overall image of the university' and the 'social life at university and social life nearby'. Factors considered to be of lesser importance were 'accommodation for first years', 'safety and security' and 'sports facilities' (Connor et al., 1999; Tackey & Aston, 1999).

Farrell (forthcoming Dissertation) found that particularly for male students, sport facilities, sports achievements and sporting reputation are all important factors to be considered when choosing a college.

Claffey (2001) in her study of secondary school students found that 15 percent if them found academic facilities (15 percent) to be an important factor to consider when selecting a third level college in Ireland.

3.5.3.1. ACADEMIC AND CAREER SERVICES

Assistance with study and the provision of course advice, help and subject tutorials beyond the classroom are factors students consider when choosing an institution (Coccari & Javalgi, 1995; Dehne, 1993).

Krone, Gilly, Zeithaml and Lamb (1981) claim that the most important criteria that students use when making a decision are those concerned with career prospects and better progression into a decent position of employment. Students therefore see the opportunity of career advancement as a priority when deciding whether or not to continue their studies (Saunders, Hamilton & Lancaster, 1978).

3.5.3.2. ACCOMMODATION

Prospective students may consider accommodation when choosing a college. Some colleges in Ireland offer on-campus living quarters. Students may decide to study at a college locally so that they can continue to live at home whilst studying.

3.5.4. LOCATION

Location is the final important area considered in this chapter. The location of an institution is often ranked as the most important factor a student considers when choosing a college. Students may choose an urban or rural campus. They may decide to commute to college. Moogan et al., (1999) found that location (distance from home, rural/urban place, town/city facilities) was a very popular attribute stated by students. Again location is seen as influential in research by Leister and Menzel (1976), Roberts and Allen (1997) and Welki and Navratil (1987).

Accessibility of the institution consists of factors such as; the availability of transport to the campus, the distance the campus is from home and the relative ease of getting home during holidays (Chapman, 1993; Litten, 1982; Maguire & Lay, 1981; Webb, 1993).

Gorman (1976) reported that location and size were the criteria most frequently used in deciding which college to attend.

The impact of location has not been widely discussed (Tight, 1996). It may however increase in importance as students face accelerating costs continuing their education, and many select to live at home and travel daily.

Chapman (1981) also states that college choice is influenced by external factors like location. The campus will have surroundings such as a local town or city. The location might be important if the prospective student is looking for the opportunity to work during the college year.

Some students may be willing to choose a university with an unfavourable location (too close or too far from home, too rural or too urban, too busy or too quiet), in exchange for a more appropriate course (more interesting/relevant modules, variety of assessment, inclusion of field trips) which has a better reputation (more established university).

In the UK the UNITE/MORI study (Anon., 2001; 2002) identifies 'location' and 'social facilities in town/city' as the second- and third-highest priority factors after 'course' in the decision process of prospective higher education students. Other factors including 'able to live at home', 'close to my family', 'able to travel home at weekends' and 'social facilities at university' were among the top ten factors influencing students' choice.

According to the Irish Farmer's Journal Newspaper (2004), (see Tables 3-6 and 3-7, Appendix A) Irish students rarely choose a college too far from home. The facts speak for themselves. For instance, a massive 76 percent of Cork students who went to college in 2003 registered in either University College Cord or Cork Institute of Technology. In Dublin the figure was even higher, with 89 percent of students progressing to third-level education staying in the capital.

In Louth over half the students in the county that progressed to third level registered at Dundalk Institute of Technology. In neighbouring Monaghan, 36 percent of those going to third level for the first time in 2003 also went to Dundalk Institute of Technology.

The same applies to Waterford Institute of Technology, where 51 percent of the county's students who went on to third level selected it as their college of choice. In Wexford 39

percent of the county's students progressed to third level in 2003 also signed up for Waterford Institute of Technology. The same applied to Kilkenny, where 31 percent of its first-year third-level students also registered at Waterford Institute of Technology.

3.6. HEURISTICS

Heuristics or consumer decision rules are procedures adopted by consumers to reduce the complexity of making product and brand decisions (Schiffman & Kanuk, 2000). They are not rational choices. They are a mechanism by which consumers attempt to deal with a potentially tricky decision making task. They may not even be aware that they are using heuristics when making a decision. There are many types of heuristics. It is doubtful that a consumer utilises one specific rule in all purchase decisions (Sheth, Mittal & Newman, 1999). Bettman and Park (1980) put forward that the decision is a two stage process: non-compensatory and compensatory. In the first stage of this **phased decision strategy** (Bettman & Park, 1980), termed the **alternative elimination stage,** consumers narrow down the set of alternatives for closer comparisons. In the next stage **(alternative selection stage)** the smaller set of alternatives is examined. The objective of the first stage is to identify acceptable alternatives, whereas the next stage identifies the best alternatives (Sheth, Mittal & Newman, 1999). Non-compensatory heuristics reduce the evoked set and the compensatory rules are then used to compare the remaining products in order to make a final choice.

3.7. THE SUNDAY TIMES IRISH UNIVERSITY LEAGUE TABLE

Trinity College Dublin topped the Sunday Times Irish University League Table 2004 (see Appendix A, Table 3-9). Research-led institutions benefit from the introduction by the Newspapers of research performance measures that compare research income to the number of academic staff.

Dublin City University, the Sunday Times Irish University of the Year, moves from fourth to second place in the current table largely due to its strong showing in the new research indicator. It overtook University College Dublin and University College Cork.

Traditionally one of the biggest gaps between universities and the institutes of technology lay in their respective dropout rates. Both Limerick Institute of Technology and Waterford

Institute of Technology, claim the country's best retention rates at 92 percent. Both have special programmes in place to encourage completion.

Among the universities Limerick has achieved the most notable gain, cutting its dropout rate from 20 percent to 11 percent. NUI Maynooth, down 3 percent to 25 percent, and DCU, down 1 percent to 20 percent are the only other improvers.

SUMMARY

This chapter presented the literature relevant to the college choice decision making process of students. It served as a background behind the research question and hypotheses addressed by the study. It covered literature relating to tertiary education in Ireland, college choice and college choice models. The five stages of the consumer decision making process were discussed with particular reference to the college choice process.

Leaving Certificate students choose courses, and by extension third level institutions. Student desires are potentially satisfied by the institutional factors (evaluative criteria) available to students who secure a place in college. These criteria were also discussed and include:

PRODUCT: the student selects courses, considering the reputation of the third level institution, the academic standards that the institution maintains, the admission requirements, the types of student who attend the institution, and the academic staff who teach in the institution.

COSTS: the student takes into account, any institutional fees, financial support, living away from home costs and the availability of higher educational grants.

FACILITIES: the student bears in mind the ways that an institution chooses to make their courses accessible, such as flexibility of courses and the variety of courses offered. Students may look at the other areas such as social and extra curricular activities.

LOCATION: students may consider the actual physical location of the third level institution; whether or not it is in a town or city. They may consider the distance from home and transport factors such as accessibility and public transport availability.

The student trades off these 'factors' to best meet their self-perceived needs. In many instances, what is important to one may be unimportant to another.

It will be argued here that Leaving Certificate Students mainly choose a college for its courses and, other factors are just secondary influences on their decision. Further, it is argued that the idea of what is the 'best choice' for the student is relative to their ability to attend the institution and their educational competence. Therefore, it is argued that there is no single set of criteria that will be important to all types of student from all socio-economic backgrounds.

CHAPTER FOUR

DATA ANALYSIS

INTRODUCTION

This chapter presents the results of the data analysis and hypotheses testing. Statistical Package for Social Sciences (SPSS) Version 12.0.1 for Windows and Microsoft Excel were both used to organise, manage, and analyse the data collected. Data were entered into the statistical package using 164 columns for each of the items on the questionnaire, and 120 rows for the study population.

Each scale was summed and then averaged to provide a scale score. Some items were inverted and recoded after the data was entered to establish item consistency within scales.

We will now proceed to discuss the results of these analyses and their interpretation. In particular, we will examine the following:

4.1. The establishment of Cronbach's alpha for the measures
4.2. Descriptive statistics: frequency distribution of the variables
4.3. Descriptive statistics: mean and standard deviation
4.4 The results of the hypotheses testing

4.1. CHECKING THE RELIABILITY OF THE MEASURES: CRONBACH'S ALPHA

The interim consistency reliability of the Cronbach's alpha reliability coefficients were obtained for the multi-item response variables contained in the questionnaire (See Appendix B). The closer the reliability coefficient is to 1.0, the better. In general, reliabilities less than 0.60 are considered to be poor, those in the .70 range, acceptable, and those over 0.80 good (Sekaran, 2003).

4.1.1. SUSCEPTIBILITY TO INTERPERSONAL INFLUENCE

The Susceptibility to Interpersonal Influence Scale measures two constructs: Normative and Informational. The result obtained for Cronbach's alpha test for the 12-item Susceptibility to Interpersonal Influence Scale (Bearden, Netemeyer and Teel, 1989), Section A, Appendix B, was 0.871 for the social approval dimension construct and .871 for the information search dimension construct as shown in Tables 4.1.1a and 4.1.1b below. Thus, the internal reliability of the constructs used here can be considered good.

Table 4.1.1a: RELIABILITY STATISTICS: SII – NORMATIVE APPENDIX B SECTION A: QUESTIONS: 1, 3, 4, 5, 7, 8, 10 & 11)

Cronbach's Alpha	N of Items
.825	8

Table 4.1.1b: RELIABILITY STATISTICS: SII – INFORMATIONAL (APPENDIX B, SECTION A, QUESTIONS: 2, 6, 9 & 12)

Cronbach's Alpha	N of Items
.871	4

4.1.2. CRONBACH'S ALPHA APPENDIX B SECTION C3

Table 4.1.2: RELIABILITY STATISTICS: APPENDIX B SETION C3

Q	CONSTRUCT	CRONBACH'S ALPHA	N
1-3	PRODUCT PERCEIVED IMPORTANTCE (INTEREST)	.854	3
4-6	PERCEIVED RISK – RISK PROBABILITY	.905	3
7-9	PERCEIVED RISK – RISK IMPORTANCE	.923	3
10-14	PERCEIVED KNOWLEDGE	.931	5
15-16	SIGN VALUE	.851	2
17-20	SEARCH INTENSITY	.894	4
21-23	PERCEIVED BENEFITS	.831	3
24-25	PERCEIVED COST	.963	2
26-27	TIME PRESSURE	.892	2
28-29	HEDONIC VALUE	.832	2

The items in Table 4.1.2 were measured on a 7-point likert scale ranging from 'strongly disagree' to 'strongly agree' (Appendix B, Section C3).The results obtained for Cronbach's alpha test for all of the constructs in section C3, Appendix B are greater than 0.8. Thus, the internal reliability of the measures used here can be considered good.

4.2. DESCRIPTIVE STATISTICS: FREQUENCY DISTRIBUTIONS OF THE VARIABLES

4.2.1. GENDER OF SAMPLE

The frequencies for the number of males and females for this sample are shown below in Table 4.2.1. It may be seen from this that the number of females was 68 or 56.7 percent and the number of males was 52 or 43.3 percent.

TABLE 4.2.1: GENDER

GENDER	Frequency	%
MALE	52	43.3
FEMALE	68	56.7
Total	120	100.0

4.2.2. AGE OF SAMPLE

The frequencies for the ages of this sample are shown below in Table 4.2.2. The age of the respondents ranges from 16 to 19 with the majority being 18 years old (63 students or 53.4 percent of the sample).

TABLE 4.2.2: AGE

AGE	Frequency	%
16	5	4.2
17	47	39.2
18	63	52.4
19	5	4.2
Total	120	100.0

4.2.3. SOCIAL CLASS OF SAMPLE

This section outlines the social class of the students' parents. Social class is a six-category classification based on both occupation and employment status, i.e. whether an individual is an employee, self-employed or an employer of others. The constituent occupations in social class were the same as those used in the Census of Population 2002.

Tables 4.2.3a and 4.2.3b on the next page respectively show the distribution by social class of both fathers and mothers. Students of 'Skilled Manual' fathers are the most represented at 40.8 percent and 'All Others…' are the lowest at 7.5 percent.

Students of 'Non Manual' mothers are represented the most at 49.2 percent. Students whose mothers fall into the 'Professional Workers' category are the lowest at 2.5 percent of the sample.

Table 4.2.3.a: SOCIAL CLASS FATHER

	Frequency	%
PROFESSIONAL WORKERS	16	13.3
MANAGERIAL AND TECHNICAL	25	20.8
NON-MANUAL	11	9.2
SKILLED MANUAL	49	40.8
SEMI-SKILLED	10	8.3
ALL OTHERS GAINFULLY OCCUPIED AND UNKNOWN	9	7.5
Total	120	100.0

Table 4.2.3b: SOCIAL CLASS MOTHER

	Frequency	%
PROFESSIONAL WORKERS	3	2.5
MANAGERIAL AND TECHNICAL	41	34.2
NON-MANUAL	59	49.2
SKILLED MANUAL	2	1.7
SEMI-SKILLED	10	8.3
ALL OTHERS GAINFULLY OCCUPIED AND UNKNOWN	5	4.2
Total	120	100.0

4.2.4. SOCIO-ECONOMIC GROUPINGS OF SAMPLE

This section outlines the socio-economic group of the students' parents. Socio-economic group provides a more detailed classification than social class also based on occupation and employment status. The constituent occupations in socio-economic group were the same as those used in the Census of Population 2002.

Tables 4.2.4a below and 4.2.4b on page 106 show the distribution by socio-economic group of fathers and mothers respectively. Students whose fathers are 'Managers and Employers' and 'Lower Professionals' are represented the most at 19.2 percent each. 'Non Manual' fathers account for the lowest at 5 percent.

Students of 'Non Manual' mothers are represented the most at 45 percent of the sample. 'Farmers' are the lowest at 1.7 percent.

Table 4.2.4a: SOCIOECONOMIC GROUP FATHER

	Frequency	%
EMPLOYERS AND MANAGERS	23	19.2
HIGHER PROFESSIONAL	14	11.7
LOWER PROFESSIONAL	23	19.2
NON-MANUAL	6	5.0
MANUAL SKILLED	18	15.0
SEMI-SKILLED	10	8.3
OWN ACCOUNT WORKERS	7	5.8
FARMERS	19	15.8
Total	120	100.0

Table 4.2.4b: SOCIOECONOMIC GROUP MOTHER

	Frequency	%
EMPLOYERS AND MANAGERS	**3**	**2.5**
HIGHER PROFESSIONAL	**3**	**2.5**
LOWER PROFESSIONAL	**43**	**35.8**
NON-MANUAL	**54**	**45.0**
SEMI-SKILLED	**10**	**8.3**
OWN ACCOUNT WORKERS	**5**	**4.2**
FARMERS	**2**	**1.7**
Total	**120**	**100.0**

4.2.5. DECISION TO GO TO THIRD LEVEL

Students were asked how long before they made their final decision did they actually decide that they wanted to go to college. The results are shown in Table 4.2.5.

Table 4.2.5: DECISION TO GO TO THIRD LEVEL

	Frequency	**%**
1 week	**4**	**3.3**
1-3 weeks	**6**	**5.0**
3-7 weeks	**5**	**4.17**
7-13 weeks	**11**	**9.17**
13-24 weeks	**12**	**10.0**
24 to 52 weeks	**20**	**16.67**
52-104 weeks	**26**	**21.67**
More than 104 weeks	**36**	**30.0**
Total	**120**	**100.0**

The highest number of students, a total of 36 (30.0 percent), decided more than 104 weeks (2 years) before making the decision. Twenty-six students (21.67 percent) decided between 52-104 weeks (1-2 years) in advance. Twenty students (16.67 percent) decided between 24-52 weeks (6 months – 1 year) beforehand. Twelve students (10 percent) made the decision to go to college 13-24 weeks (3-6 months) beforehand and eleven (9.17 percent) between 7-13 weeks. Six students (5.0 percent) decided between 1-3 weeks before; five students (4.17 percent) decided between 3-7 weeks before and four students just 1 week beforehand.

4.2.6. TIME SPENT EVALUATING THIRD LEVEL INSTITUTIONS

Students were asked how much time they spent evaluating institutions. The results are shown in Table 4.2.6.

Table 4.2.6: TIME SPENT EVALUATING INSTITUTIONS

TIME SPENT	Frequency	%
1 week	2	1.67
1-3 weeks	4	3.33
3-7 weeks	22	18.33
7-13 weeks	28	23.33
13-24 weeks	23	19.17
24 to 52 weeks	22	18.33
52-104 weeks	9	7.50
More than 104 weeks	10	8.33
Total	120	100.0

The highest number of students, a total of twenty-eight (22.5 percent), spent between 7-13 weeks evaluating colleges. Twenty-three (19.17 percent) students spent between 13-24 weeks (3-6 months) on the evaluation. Twenty-two students (18.33 percent) spent between 24-52 weeks (6 months – 1 year) and twenty-two students spent between 3-7 weeks. Ten students (8.33 percent) spent more than 104 weeks (2 years) and nine (7.5 percent) spent

between 52-104 weeks (1-2 years). Four (3.33 percent) spent between 1-3 weeks and two (1.67) spent up to 1 week.

4.2.7. NUMBER OF OPEN DAYS ATTENDED

Students were asked how many college open days they attended. The results are shown in Table 4.2.7 below.

The highest number of students, a total of 25, attended 2 open days. This accounted for 20.8 percent of the sample.

Table 4.2.7: NUMBER OF COLLEGE OPEN DAYS ATTENDED

NO. OPEN DAYS	Frequency	%
1	14	11.7
2	25	20.8
3	15	12.5
4	19	15.8
5	20	16.7
6	14	11.7
No Reply	13	10.8
Total	120	100.0

4.2.8. COLLEGES: RESEARCHED AND APPLIED TO ATTEND

Table 4.2.8a on page 109 shows the Institutes of Technology which students gathered information about and those they applied to attend.

From the table above it can be seen that Cork IT had the highest numbers with 95 or 79.2 percent of students gathering information about the college and 88 or 73.3 percent applying. I.T. Tralee was next with 70 or 58.3 percent gathering information and 50 or 41.7 percent applying.

Table 4.2.8a: INSTITUTES OF TECHNOLOGY: RESEARCHED AND APPLIED TO ATTEND

INSTITUTES OF TECHNOLOGY	RESEARCHED		APPLIED	
	N	%	N	%
CORK	95	79.2	88	73.3
TRALEE	70	58.3	50	41.7
LIMERICK	67	55.8	44	36.7
DUBLIN	48	40	21	17.5
WATERFORD	41	34.2	32	26.7
GALWAY MAYO	21	17.5	12	10
CARLOW	8	6.7	7	5.8
DUN LAOGHAIRE	8	6.7	5	4.2
SLIGO	7	5.8	4	3.3
DUNDALK	6	5	5	4.2
TALLAGHT	6	5	3	2.5
ATHLONE	5	4.2	3	2.5
LETTERKENNY	3	2.5	1	0.8
BLANCHARDSTOWN	2	1.7	2	1.7

Table 4.2.8b shows the Universities which students gathered information about and those they applied to attend.

Table 4.2.8b: UNIVERSITIES: RESEARCHED AND APPLIED TO ATTEND

UNIVERSITIES	RESEARCHED		APPLIED	
	N	%	N	%
CORK UCC	107	89.2	99	82.5
UNIVERSITY OF LIMERICK UL	87	72	66	55
DUBLIN UCD	48	40	24	20
GALWAY UCG	36	30	26	21.7
DUBLIN CITY UNIVERSITY DCU	35	29.2	17	14.2
UNIVERSITY OF DUBLIN TCD	31	25.8	21	17.5
MAYNOOTH	23	19.2	7	5.8

It can be seen that UCC had the highest numbers with 107 or 89.2 percent of students gathering information about the college and 99 or 82.5 percent applying. UL was next with 87 or 72 percent gathering information and 66 or 55 percent applying.

Table 4.2.8c: COLLEGES OF EDUCATTION: RESEARCHED AND APPLIED TO ATTEND

COLLEGES OF EDUCATION	RESEARCHED		APPLIED	
	N	%	N	%
MARY IMMACULATE COLLEGE	41	34.2	30	25
ST PATRICK'S COLLEGE OF EDUCATION	15	12.5	11	9.2
COLÁISTE MHUIRE, MARINO	11	9.2	7	5.5
FROEBEL COLLEGE OF EDUCATION	9	7.5	6	5
MATER DEI INSTITUTE OF EDUCATION	7	5.8	2	1.7
CHURCH OF IRELAND COLLEGE OF EDUCATION	2	1.7	0	0
ST. ANGELA'S COLLEGE OF EDUCATION	3	2.2	0	0
CHURCH OF IRELAND COLLEGE OF EDUCATION	2	1.7	0	0

Table 4.2.8c shows the Colleges of Education which students gathered information about and those they applied to attend.

Mary Immaculate College had the highest numbers with 41 or 34.2 percent of students gathering information about the college and 30 or 25 percent applying. St Patrick's College was next with 15 or 12.5 percent gathering information and 11 or 9.2 percent applying.

4.3. DESCRIPTIVE STATISTICS: MEASURES OF CENTRAL TENDENCIES AND DISPERSION

Descriptive statistics such as maximum, minimum, means, standard deviations and variance were obtained for the interval-scaled variables.

4.3.1. STUDENTS' PREFERENCE CRITERIA

Table 4.3.1: THE LEVEL OF IMPORTANCE OF CRITERIA NOMINATED BY STUDENTS - RANKED BY THE MOST IMPORTANT FACTOR. (APPENDIX B, SECTION C1).

		N	Mean	Std. Deviation
1	INTERESTED IN THE COURSE	119	6.67	.814
2	COURSES OFFERED	119	6.59	.682
3	RELEVANCE OF THE COURSE TO YOU CHOSEN CAREER	117	6.53	.877
4	JOB PLACEMENT OPPORTUNITIES AND THE ABILITY TO GET A GOOD JOB ON GRADUATION	117	6.32	.877
5	TYPE OF QUALIFICATION(S)	119	6.29	1.051
6	ATTAINING THE NECESSARY LEAVING CERTIFICATE RESULTS TO GET A PLACE	117	6.07	1.194
7	OPPORTUNITIES TO MEET OTHER PEOPLE AND SOCIALISE	119	5.75	1.159
8	EDUCATIONAL FACILITIES	119	5.50	1.383
9	LOCATION	118	5.40	1.705
10	IMAGE OR REPUTATION	119	5.32	1.484
11	EXTRA CURRICULAR ACTIVITIES	117	5.09	1.557
12	NON-ACADEMIC FACILITIES	116	4.86	1.401
13	COSTS	119	4.81	1.856
14	AVAILABILITY OF FINANCIAL AID, GRANTS AND STUDENT WELFARE PROGRAMS	117	4.74	1.743
15	FAMILIARITY WITH THE COLLEGE	118	4.52	1.540
16	EASY ACCESS TO SHOPPING	119	4.42	1.532
17	SIZE OF THE CAMPUS AND THE COLLEGE	114	4.12	1.552

Students were asked to rate how important the factors presented in Table 4.3.1 above was on their decision choose a college. This was done on a 7-point likert scale ranging from 'very unimportant' to 'very important' (Appendix B, Section C1). These factors are the criteria that students used to evaluate the college(s) they applied to.

All of the factors have means greater than 4.0. In fact factors one to fifteen fall into the 'somewhat important', 'important' and 'very important' categories in the 7-point likert scale.

From the table it can be seen that the first six factors have means greater than 6.0. The first three of these have means greater than 6.50. They can be considered 'very important' to the students in the sample. 'Interested in the course' with a mean of 6.67 ranks first. 'Courses offered' by the college is the second most important factor (6.59), followed by 'relevance of course to chosen career' (6.53).

The next three factors have means between 6.0 and 6.49. These factors can be considered 'important'. These are 'job placement opportunities and ability to get a good job on graduation' (6.32), 'type of qualification' (6.29) and 'attaining the necessary Leaving Certificate results to get a place' (6.07).

Factors seven and eight have means of 5.75 and 5.50 respectively so they can be considered 'important' also 5.0 making them 'somewhat important' to the students in the sample.

Factors nine to fifteen have means ranging from 5.40 to 4.52. They too can be considered 'somewhat important'.

The final too factors have means of 4.42 and 4.12 respectively. They fall into the 'neither important nor unimportant' category.

4.3.2. SOURCES OF INFORMATION

Students were asked to rate how useful they found the sources of information presented in Table 4.3.2 on page 113. This was done on a 7-point likert scale ranging from 'extremely useless' to 'extremely useful' (Appendix B, Section B7).

Table 4.3.2: USEFULNESS OF SOURCES OF INFORMATION NOMINATED BY STUDENTS - RANKED BY THE MOST USEFUL SOURCE. (APPENDIX B, SECTION B7).

		N	Mean	Std. Deviation
1	CAREER GUIDANCE COUNSELLOR	119	6.55	.889
2	OPEN DAY AT THE COLLEGE	96	5.69	1.663
3	VISIT TO YOUR SCHOOL BY COLLEGE REPRESENTATIVE(S)	115	4.99	1.789
4	GUIDE TO THIRD LEVEL COLLEGES	73	4.66	1.872
5	COLLEGE WEBSITE	82	4.55	1.925
6	COLLEGE PROSPECTUS	92	4.36	1.884
7	THIRD LEVEL EDUCATION SEMINAR	55	3.91	2.066
8	INTERNET	70	2.87	1.560
9	NEWSPAPER/MAGAZINE ARTICLE	41	2.49	1.267
10	ADVERTISEMENT IN A NEWSPAPER OR MAGAZINE	22	2.05	1.290
11	ADVERTISEMENT IN YOUR SCHOOL	39	2.03	1.013

From the table it can be seen that the ‘Career guidance counsellor’ was the most useful source of information for the student with a mean of 6.55. The ‘open day at the college’ was next with a mean of 5.69. Information obtained from college reps visiting the students’ schools was the third most useful source with a mean of 4.99.

Both advertisements in a newspaper and in school with means of 2.05 and 2.03 respectively, were found to be ‘useless’ to students as a source of information to the students in the sample.

4.3.3. INTERPERSONAL SOURCES OF INFORMATION

Table 4.3.3: THE LEVEL OF IMPORTANCE OF INTERPERSONAL SOURCES OF INFORMATION - RANKED BY THE MOST IMPORTANT SOURCE. (APPENDIX B, SECTION C2).

		N	Mean	Std. Deviation
1	GUIDANCE COUNSELLOR AND/OR TEACHER(S) FROM SCHOOL	119	6.59	.682
2	PARENT(S), BROTHER(S) AND/OR SISTER(S)	119	6.53	.608
3	FRIENDS/PEERS	119	6.05	.973
4	STUDENT(S) ALREADY ENROLLED	116	5.27	1.477
5	PEOPLE WHO PREVIOUSLY ATTENDED THE COLLEGE	114	5.10	1.475
6	COLLEGE RECRUITERS/REPRESENTATIVES	115	4.97	1.887
7	MEMBERS OF A PROFESSIONAL BODY	109	4.70	1.898
8	OTHER RELATIVE(S)	111	4.31	1.736
9	STUDENT(S) ENROLLED IN ANOTHER COLLEGE(S)	108	4.08	1.566
10	PEOPLE WHO PREVIOUSLY ATTENDED ANOTHER COLLEGE	106	4.02	1.615

Students were asked to rate how important they found the advice they received from any of the interpersonal sources presented in Table 4.3.3 above. This was done on a 7-point likert scale ranging from 'very unimportant' to 'very important' (Appendix B, Section C2).

All of the sources in the table have means greater than 4.0. 'Career guidance counsellor and/or teacher(s) from school' was the most important interpersonal source of information for the student with a mean of 6.59. This was closely followed by parents and siblings with a mean of 6.53. They both can be considered 'very important' interpersonal sources to the students in the sample.

'Friends and peers' were the third most important interpersonal source with a mean of 6.05. They fall into the 'important' category of the 7-point likert scale.

'Student(s) already enrolled' (5.27), 'People who previously attended the college' (5.10), 'College recruiters/representatives' (4.97) and 'Members of a professional body' (4.70) fall into the 'somewhat important' category for the sample.

'Other relative(s)' (4.31), 'Student(s) enrolled in another college(s)' (4.08) and 'People who previously attended another college' (4.02) fall into the 'neither important nor unimportant' category for those in the sample.

4.3.4. CONSUMER INVOLVEMENT PROFILE

In theory, involvement is considered an individual difference variable. It is a casual or motivating variable with a number of consequences on the consumer's purchase and communication behaviour. Thus, depending on their level of involvement, consumers will differ greatly in the extensiveness of their purchase decision process. (Kapferer & Laurent, 1985)

Kapferer and Laurent, (1985), proposed a four part Consumer Involvement Profile as a way of operationalising consumers' involvement in products. Table 4.3.4.1 contains the various facets that make up the Consumer Involvement Profile (CIP) (Kapferer & Laurent, 1985, 1993).

Each of the facets in the CIP (Table 4.3.4 page 116) was measured by a series of questions in Section C3, Appendix B. The mean for the sample was 5.8175 from a possible maximum mean of 7 (83 percent out of 100 percent). Therefore, as students in the sample scored high on the Consumer Involvement Profile we can conclude that they were highly involved in the college choice process.

Table 4.3.4: CONSUMER INVOLVEMENT PROFILE – FEATURES OF CIP

FEATURES OF CONSUMER INVOLVEMENT PROFILE (CIP)	DESCRIPTION OF FEATURES
1. IMPORTANCE	THE PERSONAL INTEREST A PERSON HAS IN A PRODUCT CATEGORY
2. HEDONIC VALUE	THE HEDONIC VALUE OF THE PRODUCT OR ITS ABILITY TO PROVIDE PLEASURE
3. SIGN OR SYMBOLIC VALUE	THE SIGN VALUE OF THE PRODUCT OR THE DEGREE TO WHICH IT EXPRESSES THE PERSON'S SELF
4a. PERCEIVED RISK - RISK IMPORTANCE	THE PERCEIVED IMPORTANCE OF THE POTENTIAL NEGATIVE CONSEQUENCES ASSOCIATED WITH A POOR CHOICE OF THE PRODUCT
4b. PERCEIVED RISK - RISK PROBABILITY	THE PERCEIVED PROBABILITY OF MAKING SUCH A POOR CHOICE
SOURCE: KAPFERER AND LAURENT (1985)	

4.4. HYPOTHESES

4.4.1. HYPOTHESIS 1

We wish to determine students' level of involvement with the college choice decision making process. Students' overall mean score was calculated on the Consumer Involvement Profile (Kapferer & Laurent, 1985). (The CIP is discussed in the previous section on page 16)

μ = mean of Consumer Involvement Profile

μ_0 = neutral mean. On the 7-point Likert Scale the neutral position is 4. If the mean response for the question is 4, this indicates that the respondent has a neutral position on that question.

The Null and Alternate Hypotheses are expressed as follows:

$H1_0$: $\mu_1 = \mu_0$, where $\mu_0 = 4$

$H1_{1a}$: $\mu_1 > \mu_0$

or

$H1_{1b}$: $\mu_1 < \mu_0$

A one-sample t-test was conducted to evaluate students' Consumer Involvement Profile. The results are shown in Tables 4.4.1a and 4.4.1b.

Table 4.4.1a: ONE-SAMPLE STATISTICS FOR CIP

	N	Mean	Std. Deviation	Std. Error Mean
CIP	120	5.8179	.57133	.05216

Table 4.4.1b: ONE-SAMPLE TEST FOR CIP

	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
CIP	34.855	119	.000	1.81786	1.7146	1.9211

Assuming that the Null Hypothesis is true the probability of getting a test statistic of 34.855 is less than 0.001. This is less than 5 percent (i.e. 0.005), so we reject the Null Hypothesis. In this case we accept **H_{1a}: $\mu > \mu_0$** as the mean difference is +1.81786.

The result is SIGNIFICANT. Students' do score high overall on the CIP. Therefore we can conclude that students' have high levels of involvement with regards to the college choice decision making process. It would seem from this result that the *pre-purchase information search process* is carried out with a high degree of involvement by the prospective student. The investigation and comprehension of the decision making process, as undertaken by these students is important, predominantly for the institutions themselves.

4.4.2. HYPOTHESIS 2

Risk has been proposed as an antecedent to, and an element of involvement (Choffee & McLeod, 1973; Kapferer & Laurent, 1985). Zeithaml (1981) suggests that involvement to search for information increases with the intangibility of the product. Thus, for a highly intangible product like higher education, the greater the perceived risk associated with the choice, the greater the level of involvement (Murray, 1990).

$H2_0$: There is no relationship between students' perceived risk and involvement

$H2_1$: There is a relationship between students' perceived risk and involvement

The relationship between students' perceived risk of making the wrong choice of college and their level of involvement in the college choice process was investigated using Pearson product-moment correlation coefficient. Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity.

Table: 4.4.2: CORRELATION BETWEEN PERCEIVED RISK AND INVOLVEMENT

		PERCEIVED RISK	INVOLVEMENT
PERCEIVED RISK	Pearson Correlation	1	.798(**)
	Sig. (2-tailed)		.000
	N	120	119
INVOLVEMENT	Pearson Correlation	.798(**)	1
	Sig. (2-tailed)	.000	
	N	119	119

****Correlation is significant at the 0.01 level (2-tailed).**

If we assume that the Null Hypothesis is true, the probability of getting a test statistic as large as 0.798 is less than 0.1 percent (Table 4.4.2). As this value is smaller than 5 percent (i.e. 0.05), we reject the Null Hypothesis.

The result is SIGNIFICANT. There is a strong positive linear relationship. High levels of perceived risk are associated with high levels of involvement. The more risk a student perceives when confronted with the college choice decision, the more involved the student will become in the process.

4.4.3. HYPOTHESIS 3

Consumers' involvement in products is believed to influence their information searching activities and their decision making process (Kapferer & Laurent, 1985; Quester & Smart, 1996).

People become avid seekers to obtain knowledge when they are highly involved with the product, but they do not actively seek information when they are less involved. (Kapferer & Laurent, 1985)

Information search activities may increase in intensity with the level of involvement (Slama & Tashchian, 1985). Beatty and Smith, (1987) put forward an inverted U shaped curve for external information search in terms of the consumers levels of involvement. In theory, involvement should be associated with external information search. On the other hand, others have found that external information search is lower for consumers at both ends of the involvement scale (Moorthy, Ratchford & Talukdar, 1997). In terms of college choice, prospective students' information search is expected to be related to their levels of involvement.

$H3_0$: There is no relationship between students' involvement and their intensity of search for information

$H3_1$: There is a relationship between students' involvement and their intensity of search for information

Table: 4.4.3: CORRELATION BETWEEN INVOLVEMENT AND SEARCH INTENSITY

		INVOLVEMENT	SEARCH INTENSITY
INVOLVEMENT	Pearson Correlation	1	.633(**)
	Sig. (2-tailed)		.000
	N	120	119
SEARCH INTENSITY	Pearson Correlation	.633(**)	1
	Sig. (2-tailed)	.000	
	N	119	119

****Correlation is significant at the 0.01 level (2-tailed).**

The relationship between students' involvement in the college choice process, and their intensity of search for information about colleges was investigated using Pearson product-moment correlation coefficient. Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity.

If we assume that the Null Hypothesis is true, the probability of getting a test statistic as large as 0.633 is less than 0.1 percent (Table 4.4.3). As this value is smaller than 5 percent (i.e. 0.05), we reject the Null Hypothesis.

The result is SIGNIFICANT. There is a strong positive linear relationship. High levels of involvement are associated with high levels of search.

4.4.4. HYPOTHESIS 4

Students who perceive they have some knowledge of colleges may feel that it is to their benefit to acquire more information to assist their decision. Therefore, it can be proposed that a positive relationship exists between search and perceived benefits

$H4_0$: There is no relationship between the intensity of search for information and the students' perceived benefits of information search for college information

$H4_1$: There is a relationship between the intensity of search for information and the students' perceived benefits of information search for college information

The relationship between students' intensity of search for information about colleges, and their perceived benefits from undertaking the search was investigated using Pearson

product-moment correlation coefficient. Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity.

If we assume that the Null Hypothesis is true, the probability of getting a test statistic as large as 0.747 is less than 0.1 percent (Table 4.4.4). As this value is smaller than 5 percent (i.e. 0.05), we reject the Null Hypothesis.

Table: 4.4.4: CORRELATION BETWEEN SEARCH INTENSITY AND PERCEIVED BENEFITS

		SEARCH INTENSITY	PRECEIVED BENEFIT OF INFORMATION SEARCH
SEARCH INTENSITY	Pearson Correlation	1	.747(**)
	Sig. (2-tailed)		.000
	N	119	119
PRECEIVED BENEFIT OF INFORMATION SEARCH	Pearson Correlation	.747(**)	1
	Sig. (2-tailed)	.000	
	N	119	119

****Correlation is significant at the 0.01 level (2-tailed).**

The result is HIGHLY SIGNIFICANT. There is a very strong positive linear relationship. High levels of search are associated with high levels of benefits resulting from undertaking the search.

4.4.5. HYPOTHESIS 5

It is proposed that students who perceive the college choice as being a risky decision will have a high level of search for information to reduce the risk of making a bad decision.

$H5_0$: There is no relationship between students' perceived risk of and their intensity of search for information

$H5_1$: There is a relationship between students' perceived risk and their intensity of search for information

The relationship between students' perceived risk of making the wrong choice of college, and their intensity of search for information about colleges was investigated using Pearson product-moment correlation coefficient. Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity.

If we assume that the Null Hypothesis is true, the probability of getting a test statistic as large as 0.778 is less than 0.1 percent (Table 4.4.5). As this value is smaller than 5 percent (i.e. 0.05), we reject the Null Hypothesis.

Table: 4.4.5: CORRELATION BETWEEN PERCEIVED RISK AND SEARCH INTENSITY

		PRECEIVED RISK	SEARCH INTENSITY
PRECEIVED RISK	Pearson Correlation	1	.778(**)
	Sig. (2-tailed)		.000
	N	119	119
SEARCH INTENSITY	Pearson Correlation	.778(**)	1
	Sig. (2-tailed)	.000	
	N	119	119

****Correlation is significant at the 0.01 level (2-tailed).**

The result is HIGHLY SIGNIFICANT. There is a very strong positive linear relationship. High levels of risk of making the wrong choice are associated with high levels of search for information.

4.4.6. HYPOTHESIS 6

It can be proposed that there is a positive relationship between perceived knowledge and perceived benefits (Urbany, Dickson & Wilkie, 1989). A student may search for information relating to the decision if they are either unfamiliar with the situation or unsure about their own level of knowledge about colleges (Park & Lessig, 1981). Hence, the students who in all likelihood will be the most active in seeking information are those whose background and contacts reduce the availability of memory based knowledge. They are also those whose ability to build a knowledge base previous to the college choice process is limited. Consequently, high levels of search will increase the level of knowledge.

$H6_0$: There is no relationship between students' search intensity and their perceived knowledge

$H6_1$: There is a relationship between students' search intensity and their perceived knowledge

Table: 4.4.6: CORRELATION BETWEEN SEARCH INTENSITY AND PERCEIVED KNOWLEDGE

		SEARCH INTENSITY	PERCEIVED KNOWLEDGE
SEARCH INTENSITY	Pearson Correlation	1	.561(**)
	Sig. (2-tailed)		.000
	N	119	119
PERCEIVED KNOWLEDGE	Pearson Correlation	.561(**)	1
	Sig. (2-tailed)	.000	
	N	119	119

****Correlation is significant at the 0.01 level (2-tailed).**

The relationship between students' search intensity for information, and their perceived knowledge was investigated using Pearson product-moment correlation coefficient. Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity.

If we assume that the Null Hypothesis is true, the probability of getting a test statistic as large as 0.561 is less than 0.1 percent (Table 4.4.6). As this value is smaller than 5 percent (i.e. 0.05), we reject the Null Hypothesis.

The result is SIGNIFICANT. There is a positive linear relationship. High levels of search are associated with high levels of knowledge resulting from the search.

4.4.7. HYPOTHESIS 7

Perceived risk is hypothesised to be positively related to perceived benefit of information search because a student is proposed to search for more information to reduce their risk of purchase (Murray, 1991). Under this cost-benefit analysis, additional information would enable the student to balance and appraise different risks inherent in a particular choice of college.

$H7_0$: There is no relationship between students' perceived risk and perceived benefit

$H7_1$: There is a relationship between students' perceived risk and perceived benefit

The relationship between students' perceived risk of making the wrong choice of college, and their perceived benefits resulting from undertaking the search was investigated using Pearson product-moment correlation coefficient. Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity.

Table: 4.4.7: CORRELATION BETWEEN PERCEIVED RISK AND PERCEIVED BENEFIT

		PERCEIVED RISK	PRECEIVED BENEFIT OF INFORMATION SEARCH
PERCEIVED RISK	Pearson Correlation	1	.773(**)
	Sig. (2-tailed)		.000
	N	119	119
PRECEIVED BENEFIT OF INFORMATION SEARCH	Pearson Correlation	.773(**)	
	Sig. (2-tailed)	.000	
	N	119	119

****Correlation is significant at the 0.01 level (2-tailed).**

If we assume that the Null Hypothesis is true, the probability of getting a test statistic as large as 0.773 is less than 0.1 percent (Table 4.4.7). As this value is smaller than 5 percent (i.e. 0.05), we reject the Null Hypothesis.

The result is SIGNIFICANT. There is a strong positive linear relationship. High levels of risk of making the wrong choice are associated with high levels of the benefits of undertaking the search for information.

4.4.8. HYPOTHESIS 8

It has been shown already that there is a strong linear relationship between involvement and search (Hypothesis 2, page 18). Hence, it is proposed that there is a relationship between involvement and knowledge as the level of knowledge increases with search.

$H8_0$: There is no between students' involvement and their perceived knowledge

$H8_1$: There is a relationship between students' involvement and their perceived knowledge

Table: 4.4.8: CORRELATION BETWEEN INVOLVEMENT AND PERCEIVED KNOWLEDGE

		INVOLVEMENT	PERCEIVED KNOWLEDGE
INVOLVEMENT	Pearson Correlation	1	.674(**)
	Sig. (2-tailed)		.000
	N	119	119
PERCEIVED KNOWLEDGE	Pearson Correlation	.674(**)	1
	Sig. (2-tailed)	.000	
	N	119	120

**** Correlation is significant at the 0.01 level (2-tailed).**

The relationship between the students' involvement and perceived knowledge was investigated using Pearson product-moment correlation coefficient. Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity.

If we assume that the Null Hypothesis is true, the probability of getting a test statistic as large as 0.674 is less than 0.1 percent (Table 4.4.8). As this value is smaller than 5 percent (i.e. 0.05), we reject the Null Hypothesis.

The result is SIGNIFICANT. There is a strong positive linear relationship. High levels of involvement are associated with high levels of knowledge.

4.4.9. HYPOTHESIS 9

It can be proposed that students who perceive they have little knowledge of colleges would be likely to perceive that the purchase they make is risky. Increased knowledge could be a means for the student to lower the risk of choosing the wrong college. This relationship proposes that students have little knowledge about colleges at the beginning of the search process, and that their perceived risk of making a bad decision is high. They would consequently search for more information to reduce the risk of making a poor choice.

$H9_0$: There is no relationship between students' perceived risk and perceived knowledge

$H9_1$: There is a relationship between students' perceived risk and perceived knowledge

Table: 4.4.9: CORRELATION BETWEEN PERCEIVED RISK AND PERCEIVED KNOWLEGDE

		PERCEIVED RISK	PERCEIVED KNOWLEDGE
PERCEIVED RISK	Pearson Correlation	1	.744(**)
	Sig. (2-tailed)		.000
	N	119	119
PERCEIVED KNOWLEDGE	Pearson Correlation	.744(**)	1
	Sig. (2-tailed)	.000	
	N	119	120

** Correlation is significant at the 0.01 level (2-tailed).

The relationship between the students' perceived risk and their perceived knowledge was investigated using Pearson product-moment correlation coefficient. Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity.

If we assume that the Null Hypothesis is true, the probability of getting a test statistic as large as 0.744 is less than 0.1 percent (Table 4.4.9). As this value is smaller than 5 percent (i.e. 0.05), we accept the Null Hypothesis.

The result is SIGNIFICANT. However, here there is a positive linear relationship rather than the expected negative linear relationship. Hence, students who acquire more knowledge did not perceive the decision as less risky.

4.4.10. HYPOTHESIS 10

Srinivasan and Ratchford (1991) found that information search was positively related to cost. It is postulated here that this is the case. As the search increases so too does the cost.

$H10_0$: There is no relationship between students' search intensity and perceived cost

$H10_1$: There is a relationship between students' search intensity and perceived cost

Table 4.4.10: CORRELATION BETWEEN SEARCH INTENSITY AND COST

		SEARCH INTENSITY	PERCEIVED COST
SEARCH INTENSITY	Pearson Correlation	1	.561(**)
	Sig. (2-tailed)		.000
	N	119	119
PERCEIVED COST	Pearson Correlation	.561(**)	1
	Sig. (2-tailed)	.000	
	N	119	119

**** Correlation is significant at the 0.01 level (2-tailed).**

The relationship between the students' search intensity and perceived cost was investigated using Pearson product-moment correlation coefficient. Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity.

If we assume that the Null Hypothesis is true, the probability of getting a test statistic as large as 0.561 is less than 0.1 percent (Table 4.4.10). As this value is smaller than 5 percent (i.e. 0.05), we reject the Null Hypothesis.

The result is SIGNIFICANT. There is a positive linear relationship. High levels of search are associated with high levels cost of the search. Students who search more intensely for information will perceive that it will cost more to do so.

4.4.11. HYPOTHESIS 11

Numerous consumer decisions are made under time pressure, with inadequate time to gather information and to weigh up all the advantages and disadvantages comprehensively. Time pressure influences the amount of information that can be processed, and its impact on consumer decision making is important (Iyer 1989). Research shows that when involvement is high, consumers spend more time acquiring information (Celsi & Olson 1988). Hence, it is postulated here that as time pressure increases, resulting in the amount of time available to make a decision falling, the level of involvement decreases.

$H11_0$: There is no relationship between students' time pressure to make a decision and their involvement

H11$_1$: There is a relationship between students' time pressure to make a decision and their involvement

Table 4.4.11: CORRELATION BETWEEN TIME PRESSURE AND INVOLVEMENT

		TIME PRESSURE	INVOLVEMENT
TIME PRESSURE	Pearson Correlation	1	-.502(**)
	Sig. (2-tailed)		.000
	N	119	119
INVOLVEMENT	Pearson Correlation	-.502(**)	1
	Sig. (2-tailed)	.000	
	N	119	119

**** Correlation is significant at the 0.01 level (2-tailed).**

The relationship between the students' time pressure and involvement was investigated using Pearson product-moment correlation coefficient. Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity.

If we assume that the Null Hypothesis is true, the probability of getting a test statistic as large as -0.502 is less than 0.1 percent (Table 4.4.11). As this value is smaller than 5 percent (i.e. 0.05), we reject the Null Hypothesis.

The result is SIGNIFICANT. There is a negative linear relationship. High levels of time pressure are associated with low levels of involvement. Hence, students who are under pressure to make decisions quickly will have low levels of involvement in the decision making process.

4.4.12. HYPOTHESIS 12

According to Beatty and Smith (1987, page 88) time pressure "has consistently been found to be related to external search... if one has more available time, one will be motivated to search more, all other things being equal."

It is postulated here that as the amount of time pressure increases the search for information decreases.

$H12_0$: There is no relationship between students' time pressure and search intensity

$H12_1$: There is a relationship between students' time pressure and search intensity

The relationship between the students' time pressure and involvement was investigated using Pearson product-moment correlation coefficient. Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity.

Table 4.4.12: CORRELATION BETWEEN TIME PRESSURE AND SEARCH INTENSITY

		TIME PRESSURE	SEARCH INTENSITY
TIME PRESSURE	Pearson Correlation	1	-.455(**)
	Sig. (2-tailed)		.000
	N	119	119
SEARCH INTENSITY	Pearson Correlation	-.455(**)	1
	Sig. (2-tailed)	.000	
	N	119	119

** Correlation is significant at the 0.01 level (2-tailed).

If we assume that the Null Hypothesis is true, the probability of getting a test statistic as large as -0.455 is less than 0.1 percent (Table 4.4.12). As this value is smaller than 5 percent (i.e. 0.05), we reject the Null Hypothesis.

The result is SIGNIFICANT. There is a negative linear relationship. High levels of time pressure are associated with low levels search. Hence, students who are under pressure to make decisions quickly will have low levels of search for information.

4.4.13. HYPOTHESIS 13

We wish to determine which factors are important when choosing a particular college. The seventeen factors investigated were as follows:

1. Costs
2. Image Or Reputation
3. Size Of The Campus And The College
4. Location
5. Courses Offered
6. Educational Facilities
7. Type Of Qualification(S)
8. Opportunities To Meet Other People And Socialise
9. Extra Curricular Activities
10. Job Placement Opportunities And The Ability To Get A Good Job On Graduation
11. Being Able To Attain The Necessary Leaving Certificate Results To Get A Place
12. Non-Academic Facilities
13. Availability Of Financial Aid, Grants And Student Welfare Programs
14. Relevance Of The Course To You Chosen Career
15. Interested In The Course
16. Familiarity With The College
17. Easy Access To Shopping

Each student was asked to score each factor using the following 7-point Likert scale:

very unimportant	unimportant	somewhat unimportant	neither important nor unimportant	somewhat important	important	very important
1	**2**	**3**	**4**	**5**	**6**	**7**

The mean score obtained for the sample along with additional information, for each factor is shown in Table 4.4.13.a on page 131. The data is ranked by most important factor.

Table 4.4.13a: THE LEVEL OF IMPORTANCE OF CRITERIA NOMINATED BY STUDENTS IN THE SAMPLE

		Mean	Std. Deviation
1	INTERESTED IN THE COURSE	6.67	0.81
2	RELEVANCE OF THE COURSE TO YOU CHOSEN CAREER	6.59	0.88
3	COURSES OFFERED	6.53	0.91
4	JOB PLACEMENT OPPORTUNITIES AND THE ABILITY TO GET A GOOD JOB ON GRADUATION	6.32	0.88
5	TYPE OF QUALIFICATION(S)	6.29	1.05
6	BEING ABLE TO ATTAIN THE NECESSARY LEAVING CERTIFICATE RESULTS TO GET A PLACE	6.07	1.19
7	OPPORTUNITIES TO MEET OTHER PEOPLE AND SOCIALISE	5.75	1.16
8	EDUCATIONAL FACILITIES	5.50	1.38
9	LOCATION	5.40	1.71
10	IMAGE OR REPUTATION	5.32	1.48
11	EXTRA CURRUCULAR ACTIVITIES	5.09	1.56
12	NON-ACADEMIC FACILITIES	4.86	1.40
13	COSTS	4.81	1.86
14	AVAILABILITY OF FINANCIAL AID, GRANTS AND STUDENT WELFARE PROGRAMS	4.74	1.74
15	FAMILIARITY WITH THE COLLEGE	4.52	1.54
16	EASY ACCESS TO SHOPPING	4.42	1.53
17	SIZE OF THE CAMPUS AND THE COLLEGE	4.12	1.55

We wish to test the hypothesis that all factors are of equal importance when choosing a college against the hypothesis that all factors are not of equal importance when deciding which college to choose i.e.

$H13_0$: $\mu 1 = \mu 2 \ldots = \mu 17$

$H13_1$: $\mu 1$? $\mu 2 \ldots$? $\mu 17$

The null and alternative hypotheses may be restated as follows:

$H13_0$: All factors are of equal importance to students' when choosing a college

$H13_1$: All factors are not of equal importance to students' when choosing a college

The method employed here is the General Linear Model Analysis of Variance**.** The Mauchly's Test of Sphericity was significant ($p < 0.05$). Therefore the Huynh-Feldt Test

was employed. We obtained a significant result ($p < 0.05$). We conclude that at least one mean score is different form the others i.e. not all factors are of equal importance when choosing a college.

The following factors (Table 4.4.13b) were found to be important to Leaving Certificate Students when deciding which college to choose.

Table 4.4.13b: THE LEVEL OF IMPORTANCE OF CRITERIA NOMINATED BY LEAVING CERTIFICATE STUDENTS

		Mean	Std. Deviation	Sig.
1	INTERESTED IN THE COURSE	6.67	0.81	.000
2	RELEVANCE OF THE COURSE TO YOU CHOSEN CAREER	6.59	0.88	.000
3	COURSES OFFERED	6.53	0.91	.000
4	JOB PLACEMENT OPPORTUNITIES AND THE ABILITY TO GET A GOOD JOB ON GRADUATION	6.32	0.88	.000
5	TYPE OF QUALIFICATION(S)	6.29	1.05	.000
6	BEING ABLE TO ATTAIN THE NECESSARY LEAVING CERTIFICATE RESULTS TO GET A PLACE	6.07	1.19	.000
7	OPPORTUNITIES TO MEET OTHER PEOPLE AND SOCIALISE	5.75	1.16	.000
8	EDUCATIONAL FACILITIES	5.50	1.38	.000
9	LOCATION	5.40	1.71	.000
10	IMAGE OR REPUTATION	5.32	1.48	.000
11	EXTRA CURRUCULAR ACTIVITIES	5.09	1.56	.000
12	NON-ACADEMIC FACILITIES	4.86	1.40	.000
13	COSTS	4.81	1.86	.000
14	AVAILABILITY OF FINANCIAL AID, GRANTS AND STUDENT WELFARE PROGRAMS	4.74	1.74	.000

Anova

Table 4.4.13b above shows that the most important factor when choosing a college is 'interest in the course' offered by the college. The 'relevance of the course to the students chosen career' is the second most important factor considered by students when choosing a college. The type of 'course offered' is the third most important factor.

4.4.14. HYPOTHESIS 14

We wish to determine whether of not students are susceptible to interpersonal influence. Consumer Susceptibility to Interpersonal Influence (CSII) is a measure of the degree to

which a person is influenced by real or imagined others, specifically with regard to his or her consumption choices. The CSII scale, developed by Bearden, Netemeyer and Teel (1989), is a comprehensive individual multi-dimensional scale intended to measure the extent to which an individual's consumer choices are influenced by others.

The CSII scale contains two dimensions: an informational section and a normative section (see Appendix, Section A, for the list of scale items). The informational component measures an individual's tendency to obtain information about products or services by observing or directly seeking information from other people. The normative component measures an individual's need to use product and/or brand purchases to identify with or enhance their image in the eyes of significant others, and an individual's eagerness to conform to the expectations of other people in making purchase decisions (Bearden et. al, 1989).

μ_1 = mean normative dimension of CSII Scale

μ_2 = mean informational dimension of CSII Scale

μ_0 = neutral mean. On the 7-point Likert Scale the neutral position is 4. If the mean response for the question is 4, this indicates that the respondent has a neutral position on that question.

$\mu_1 + \mu_2 =$ mean CSII Scale = μ_3

The Null and Alternate Hypotheses for the normative dimension are expressed as follows:

$H14_{01}$: $\mu_1 = \mu_0$, where $\mu_0 = 4$

$H14_{1a}$: $\mu_1 > \mu_0$

or

$H14_{1b}$: $\mu_1 < \mu_0$

A one-sample t-test was conducted to evaluate the normative dimension of the CSII Scale.

Table 4.4.14a: ONE-SAMPLE STATISTICS NORMATIVE DIMENSION CSII SCALE

	N	Mean	Std. Deviation	Std. Error Mean
NORMATIVE DIMENSION CSII	120	5.3709	1.12668	.10285

Table 4.4.14b: ONE-SAMPLE TEST NORMATIVE DIMENSION CSII SCALE

	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
NORMATIVE DIMENSION CSII	13.329	119	.000	1.37094	1.1673	1.5746

Assuming that the Null Hypothesis is true the probability of getting a test statistic of 13.329 is less than 0.001. This is less than 5 percent (i.e. 0.005), so we reject the Null Hypothesis. In this case we accept **$H14_{1a}$: $\mu_1 > \mu_0$** as the mean difference in this case is +1.37094.

The result is SIGNIFICANT. Students' do score high on the normative dimension of the CSII Scale. Therefore, they are susceptible to normative influence.

The Null and Alternate Hypotheses for the informational dimension are expressed as follows:

$H14_{02}$: $\mu_2 = \mu_0$, where $\mu_0 = 4$

$H14_{2a}$: $\mu_2 > \mu_0$

or

$H14_{2b}$: $\mu_2 < \mu_0$

A one-sample t-test was conducted to evaluate the informational dimension of the CSII Scale.

Table 4.4.14c: ONE-SAMPLE STATISTICS INFORMATIONAL DIMENSION CSII SCALE

	N	Mean	Std. Deviation	Std. Error Mean
INFORMATIONAL DIMENSION CSII	120	5.6875	1.08041	.09863

Table 4.4.14d: ONE-SAMPLE TEST INFORMATIONAL DIMENSION CSII SCALE

	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
INFORMATIONAL DIMENSION CSII	17.110	119	.000	1.68750	1.4922	1.8828

Assuming that the Null Hypothesis is true the probability of getting a test statistic of 17.110 is less than 0.001. This is less than 5 percent (i.e. 0.005), so we reject the Null Hypothesis. In this case we accept $\mathbf{H14_{2a}: \mu > \mu_0}$ as the mean difference is +1.68750.
The result is SIGNIFICANT. Students' do score high on the informational dimension of the CSII Scale. Therefore, they are susceptible to informational influence.

Now we wish to determine students' overall performance on the CSII Scale. The Null and Alternate Hypotheses for the CSII Scale are expressed as follows:

$\mathbf{H14_{03}: \mu_3 = \mu_0}$, **where** $\mathbf{\mu_0 = 4}$ ($\mu_1 + \mu_2$ = mean CSII Scale = μ_3)

$\mathbf{H14_{3a}: \mu_3 > \mu_0}$

or

$\mathbf{H14_{3b}: \mu_3 < \mu_0}$

Table 4.4.14e: ONE-SAMPLE STATISTICS FOR CSII SCALE

	N	Mean	Std. Deviation	Std. Error Mean
CSII	120	5.4769	.83687	.07640

Table 4.4.14f: ONE-SAMPLE TEST FOR CSII SCALE

	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
CSII	19.333	119	.000	1.47692	1.3257	1.6282

A one-sample t-test was conducted to evaluate the CSII Scale.

Assuming that the Null Hypothesis is true the probability of getting a test statistic of 19.333 is less than 0.001. This is less than 5 percent (i.e. 0.005), so we reject the Null Hypothesis. In this case we accept $\mathbf{H14_{3a}: \mu > \mu_0}$ as the mean difference is +1.47692.

The result is SIGNIFICANT. Students' do score high overall on the CSII Scale. Therefore we can conclude that students' are susceptible to interpersonal influence.

4.4.15. HYPOTHESIS 15

We wish to determine how useful was the information received from the following sources. The list of sources is as follows:

1. Newspaper/magazine article
2. Guide to third level colleges
3. Advertisement in newspaper or magazine
4. College Website
5. Internet
6. Advertisement in your school
7. Third level education seminar
8. Open day at the college
9. Visits to your school by college representatives
10. Career Guidance Counsellor
11. College Prospectus

Each student was asked to score how useful they found the information they received from that source using the following 7-point Likert scale.

extremely useless	useless	moderately useless	neither useful nor useless	moderately useful	useful	extremely useful
1	**2**	**3**	**4**	**5**	**6**	**7**

The mean score obtained for the sample along with additional information, for each source of information is shown in Table 4.4.15a below. The data is ranked by most useful information source for the students in the sample.

Table 4.4.15a: USEFUL SOURCES OF INFORMATION FOR THE SAMPLE

		Mean	Std. Deviation
1	CAREER GUIDANCE COUNSELLOR	6.55	.889
2	OPEN DAY AT THE COLLEGE	5.69	1.663
3	VISIT TO YOUR SCHOOL BY COLLEGE REPRESENTATIVE(S)	4.99	1.789
4	GUIDE TO THIRD LEVEL COLLEGES	4.66	1.872
5	COLLEGE WEBSITE	4.55	1.925
6	COLLEGE PROSPECTUS	4.36	1.884
7	THIRD LEVEL EDUCATION SEMINAR	3.91	2.066
8	INTERNET	2.87	1.560
9	NEWSPAPER/MAGAZINE ARTICLE	2.49	1.267
10	ADVERTISEMENT IN A NEWSPAPER OR MAGAZINE	2.05	1.290
11	ADVERTISEMENT IN YOUR SCHOOL	2.03	1.013

We wish to test the hypothesis that all information received from the sources is of equal use to Leaving Certificate Students when choosing a college against the hypothesis that all the information received is not of equal use to Leaving Certificate Students when deciding which college to choose i.e.

$H15_0$: $\mu 1 = \mu 2 \ldots = \mu 11$

$H15_1$: $\mu 1$? $\mu 2 \ldots$? $\mu 11$

The null and alternative hypotheses may be restated as follows:

$H15_0$: All the information received from the various sources is of equal use to students when choosing a college

$H15_1$: All the information received from the various sources is not of equal use to students when choosing a college

The method employed here is the General Linear Model Analysis of Variance**.** The Mauchly's Test of Sphericity was significant ($p < 0.05$). Therefore the Huynh-Feldt Test was employed. We obtained a significant result ($p < 0.05$).

We conclude that at least one mean score is different form the others i.e. not all the information received from the various sources was of equal use to students when choosing a college.

The following sources provide useful information to Leaving Certificate Students when deciding which college to choose. They are reproduced in Table 4.4.15b and ranked by the most important factor:

Table 4.4.15b: USEFUL SOURCES OF INFORMATION FOR LEAVING CERTIFICATE STUDENTS

		Mean	Std. Deviation	Sig.
1	CAREER GUIDANCE COUNSELLOR	6.55	.889	.000
2	OPEN DAY AT THE COLLEGE	5.69	1.663	.000
3	VISIT TO YOUR SCHOOL BY COLLEGE REPRESENTATIVE(S)	4.99	1.789	.000
4	GUIDE TO THIRD LEVEL COLLEGES	4.66	1.872	.000
5	COLLEGE WEBSITE	4.55	1.925	.000

Anova

4.4.16. HYPOTHESIS 16

We wish to determine how important interpersonal sources of information to students when choosing a college were. The list of interpersonal sources is as follows:

1. Friends / peers
2. Students already enrolled at the college
3. People who previously attended the college
4. People who previously attended another college
5. Student(s) enrolled at another college
6. Parents(s), brother(s) and/or sister(s)
7. Other relative(s) e.g., grandparents, uncles, aunts
8. Guidance counsellor and/or teacher(s) from school
9. Members of a professional body
10. Recruiter or representative from the College

Each student was asked to score how important they rated the advice received from that source using the following 7-point Likert scale.

very unimportant	unimportant	somewhat unimportant	neither important nor unimportant	somewhat important	important	very important
1	**2**	**3**	**4**	**5**	**6**	**7**

The mean score obtained for the sample along with additional information, for each source of advice is shown in Table 4.4.16a on page 140. The data is ranked by most important interpersonal source for the students in the sample.

Table 4.4.16a: THE LEVEL OF IMPORTANCE OF INTERPERSONAL SOURCES OF INFORMATION FOR THE SAMPLE

		Mean	Std. Deviation
1	GUIDANCE COUNSELLOR AND/OR TEACHER(S) FROM SCHOOL	6.59	.682
2	PARENT(S), BROTHER(S) AND/OR SISTER(S)	6.53	.608
3	FRIENDS/PEERS	6.05	.973
4	STUDENT(S) ALREADY ENROLLED	5.27	1.477
5	PEOPLE WHO PREVIOUSLY ATTENDED THE COLLEGE	5.10	1.475
6	COLLEGE RECRUITERS/REPRESENTATIVES	4.97	1.887
7	MEMBERS OF A PROFESSIONAL BODY	4.70	1.898
8	OTHER RELATIVE(S)	4.31	1.736
9	STUDENT(S) ENROLLED IN ANOTHER COLLEGE(S)	4.08	1.566
10	PEOPLE WHO PREVIOUSLY ATTENDED ANOTHER COLLEGE	4.02	1.615

We wish to test the hypothesis that all the advice received from interpersonal sources is of equal importance to Leaving Certificate Students when choosing a college against the hypothesis that all the advice received is not of equal importance to Leaving Certificate Students when deciding which college to choose i.e.

$H16_0$: $\mu 1 = \mu 2 \ldots = \mu 10$

$H16_1$: $\mu 1$? $\mu 2 \ldots$? $\mu 10$

The null and alternative hypotheses may be restated as follows:

$H16_0$: All the advice received from interpersonal sources is of equal importance to students when choosing a college

$H16_1$: All the advice received from interpersonal sources is not of equal importance to students when choosing a college

The method employed here is the General Linear Model Analysis of Variance**.** The Mauchly's Test of Sphericity was significant ($p < 0.05$). Therefore the Huynh-Feldt Test was employed. We obtained a significant result ($p < 0.05$).

We conclude that at least one mean score is different form the others i.e. not all the advice given from the different people was of equal importance to students when choosing a college.

The following interpersonal sources of information are important to Leaving Certificate Students when deciding which college to choose. They are reproduced in Table 4.4.16b and ranked by the most important factor:

Table 4.4.16b: THE LEVEL OF IMPORTANCE OF INTERPERSONAL SOURCES OF INFORMATION FOR LEAVING CERTIFICATE STUDENTS

		Mean	Std. Deviation	Sig.
1	GUIDANCE COUNSELLOR AND/OR TEACHER(S) FROM SCHOOL	6.59	.682	.000
2	PARENT(S), BROTHER(S) AND/OR SISTER(S)	6.53	.608	.000
3	FRIENDS/PEERS	6.05	.973	.000
4	STUDENT(S) ALREADY ENROLLED	5.27	1.477	.000
5	PEOPLE WHO PREVIOUSLY ATTENDED THE COLLEGE	5.10	1.475	.000
6	COLLEGE RECRUITERS/REPRESENTATIVES	4.97	1.887	.000
7	MEMBERS OF A PROFESSIONAL BODY	4.70	1.898	.000

Anova

From the table it can be seen that the most important interpersonal source is the 'career guidance counsellor and/or teacher(s) from school'. This is closely followed by 'parents' and 'siblings'. The third most important source is 'friends or peers'.

4.4.17. HYPOTHESIS 17

μ_1 = mean interpersonal sources used

μ_2 = mean non-personal sources used

$H17_0$: $\mu_1 = \mu_2$

$H17_{1a}$: $\mu_1 > \mu_2$

or

$H17_{1b}$: $\mu_1 < \mu_2$

$H17_0$: Student's use of interpersonal sources of information is equal to their use of non-personal sources of information

$H17_{1a}$: Student's use of interpersonal sources of information is more than their use of non-personal sources of information

or

$H17_{1b}$: Student's use of interpersonal sources of information is less than their use of non-personal sources of information

A paired-samples t-test was conducted to evaluate students' use of non-personal sources and interpersonal sources of information.

Assuming that the Null Hypothesis is true the probability of getting a test statistic of 25.925 is less than 0.001. This is less than 5 percent (i.e. 0.005), so we reject the Null Hypothesis and accept **$H17_{1b}$** as the mean difference in this case is 5.133. (See Table 4.4.17a below and Table 4.4.17b on next page)

The result is SIGNIFICANT. Students' use more interpersonal sources than non-personal sources of information during the college choice process.

Table 4.4.17a: PAIRED SAMPLES STATISTICS NON-PERSONAL AND INTERPERSONAL SOURCES

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	MEAN NON-PERSONAL	4.75	120	2.159	.197
	MEAN INTERPERSONAL	9.88	120	.322	.029

Table 4.4.17b: PAIRED SAMPLES TEST NON-PERSONAL AND INTERPERSONAL SOURCES

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Dev.	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	MEAN NP MEAN IP	-5.133	2.169	.198	-4.741	-5.525	-25.925	119	.000

4.4.18. HYPOTHESIS 18

We wish to determine students' use of heuristics or consumer decision rules and examine any relationships between them.

Students were asked to indicate their level of agreement with five statements, each of which corresponds to one of the heuristics in Table 4.4.18a next page. (Section C4, Appendix B).

μ_1 = mean of compensatory heuristic

$\mu 2$ = mean of conjunctive heuristic

μ_3 = mean of disjunctive heuristic

μ_4 = mean of lexicographic heuristic

μ_5 = mean of affect referral heuristic

μ_0 = neutral mean. On the 7-point Likert Scale the neutral position is 4. If the mean response for the question is 4, this indicates that the respondent has a neutral position on that question.

The Null and Alternate Hypotheses are expressed as follows:

$H18_{01}$: $\mu_1 = \mu_0$, where $\mu_0 = 4$

$H18_{1a}$: $\mu_1 > \mu_0$

$H18_{1b}$: $\mu_1 < \mu_0$

$H18_{02}$: $\mu_2 = \mu_0$, where $\mu_0 = 4$

$H18_{2a}$: $\mu_5 > \mu_0$

$H18_{2b}$: $\mu_2 < \mu_0$

$H18_{03}$: $\mu_3 = \mu_0$, where $\mu_0 = 4$

$H18_{3a}$: $\mu_3 > \mu_0$

$H18_{3b}$: $\mu_3 < \mu_0$

$H18_{04}$: $\mu_4 = \mu_0$, where $\mu_0 = 4$

$H18_{4a}$: $\mu_4 > \mu_0$

$H18_{4b}$: $\mu_4 < \mu_0$

$H18_{05}$: $\mu_5 = \mu_0$, where $\mu_0 = 4$

$H18_{5a}$: $\mu_5 > \mu_0$

$H18_{5b}$: $\mu_5 < \mu_0$

A one sample t-test was used here. The results are presented in the Table 4.4.18a below and Table 4.4.18b next page.

Table 4.4.18a: ONE-SAMPLE STATISTICS - HEURISTICS

HEURISTIC	N	Mean	Std. Deviation	Std. Error Mean
COMPENSATORY	120	6.23	1.141	.104
CONJUNCTIVE	120	2.67	1.552	.142
DISJUNCTIVE	120	2.80	1.638	.150
LEXICOGRAPHIC	120	5.20	2.032	.185
AFFECT REFERAL	120	2.33	1.792	.164

Table 4.4.18b: ONE-SAMPLE TEST HEURISTICS

	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
HEURISTIC					Lower	Upper
COMPENSATORY	21.362	119	.000	2.225	2.02	2.43
CONJUNCTIVE	-9.411	119	.000	-1.333	-1.61	-1.05
DISJUNCTIVE	-8.026	119	.000	-1.200	-1.50	-.90
LEXICOGRAPHIC	6.470	119	.000	1.200	.83	1.57
AFFECT REFERAL	-10.237	119	.000	-1.675	-2.00	-1.35

Assuming that Null Hypothesis $\mathbf{H18_{01}}$ is true the probability of getting a test statistic of 21.362 is less than 0.001. This is less than 5 percent (i.e. 0.005), so reject the Null Hypothesis $\mathbf{(H18_{01})}$. In this case we accept $\mathbf{H18_{1a}: \mu_1 > \mu_0}$ as the mean difference is +2.225. The result is SIGNIFICANT.

Assuming that Null Hypothesis $\mathbf{H18_{02}}$ is true the probability of getting a test statistic of -9.411 is less than 0.001. This is less than 5 percent (i.e. 0.005), so we reject the Null Hypothesis $\mathbf{(H18_{02})}$. In this case we accept $\mathbf{H18_{2b}: \mu_2 < \mu_0}$ as the mean difference is -1.333. The result is SIGNIFICANT.

Assuming that Null Hypothesis $\mathbf{H18_{03}}$ is true the probability of getting a test statistic of -8.026 is less than 0.001. This is less than 5 percent (i.e. 0.005), we so fail to reject the Null Hypothesis $\mathbf{(H18_{03})}$. In this case we accept $\mathbf{H18_{3b}: \mu_3 < \mu_0}$ as the mean difference is -1.20. The result is SIGNIFICANT.

Assuming that Null Hypothesis $\mathbf{H18_{04}}$ is true the probability of getting a test statistic of 6.470 is less than 0.001. This is less than 5 percent (i.e. 0.005), so we reject the Null Hypothesis $\mathbf{(H18_{04})}$. In this case we accept $\mathbf{H18_{4a}: \mu_4 > \mu_0}$ as the mean difference is 1.20. The result is SIGNIFICANT.

Assuming that Null Hypothesis $\mathbf{H18_{05}}$ is true the probability of getting a test statistic of -10.237 is less than 0.001. This is less than 5 percent (i.e. 0.005), so we reject the Null Hypothesis $\mathbf{(H18_{05})}$. In this case we accept $\mathbf{H18_{5b}: \mu_5 < \mu_0}$ as the mean difference is

-1.675. The result is SIGNIFICANT. The result of the t-tests shows that the Compensatory and Lexicographic decision rules both have means greater than 4. All others have means less than 4.

The Compensatory Heuristic is utilised the most by students with a mean of 6.23. The Lexicographic Heuristic is next with a mean of 5.20. As the others have means of less than 4 we can conclude that they are not utilised by students when making decisions.

The relationship between students' heuristics was then investigated using Pearson product-moment correlation coefficient. Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity.

$H18_{06}$: There is not a positive relationship between the compensatory and lexicographic heuristics

$H18_{16}$: There is a positive relationship between the compensatory and lexicographic heuristics

We can see from Table 4.4.18c next page that the result for the Compensatory and Lexicographic heuristics is SIGNIFICANT, as the probability of getting a test statistic of 0.452 is less than 0.1 percent. As this value is smaller than 5 percent (i.e. 0.05) the result we reject the Null Hypothesis. We can see that there is a positive linear relationship between the two heuristics. From this result we can conclude that students' use a combination of the Compensatory and Lexicographic heuristics when making a decision.

Table 4.4.18c: CORRELATIONS FOR HEURISTICS

HEURISTIC		COMP.	CONJ.	DISJ.	LEX.	AFF. REF.
COMPENSATORY	Pearson Correlation	1	-.071	-.039	.452(**)	.067
	Sig. (2-tailed)		.440	.675	.000	.469
	N	120	120	120	120	120
CONJUNCTIVE	Pearson Correlation	-.071	1	-.053	-.117	.042
	Sig. (2-tailed)	.440		.566	.202	.647
	N	120	120	120	120	120
DISJUNCTIVE	Pearson Correlation	-.039	-.053	1	.058	.054
	Sig. (2-tailed)	.675	.566		.532	.559
	N	120	120	120	120	120
LEXICOGRAPHIC	Pearson Correlation	.452(**)	-.117	.058	1	.047
	Sig. (2-tailed)	.000	.202	.532		.613
	N	120	120	120	120	120
AFFECT REFERRAL	Pearson Correlation	.067	.042	.054	.047	1
	Sig. (2-tailed)	.469	.647	.559	.613	
	N	120	120	120	120	120

** Correlation is significant at the 0.01 level (2-tailed).

4.4.19: HYPOTHESIS 19

$H19_0$: There is no relationship between the colleges in the students' consideration sets

$H19_1$: There is a relationship between the colleges in the students' consideration sets

Table: 4.4.19: CONSIDERATION SETS: CORRELATIONS BETWEEN COLLEGES

		INSTITUTES OF TECH.	UNI	COLLEGES OF ED.
INSTITUTES OF TECHNOLOGY	Pearson Correlation	1	.435(**)	-.014
	Sig. (2-tailed)		.000	.876
	N	120	120	120
UNIVERSITIES	Pearson Correlation	.435(**)	1	.061
	Sig. (2-tailed)	.000		.510
	N	120	120	120
COLLEGES OF EDUCATION	Pearson Correlation	-.014	.061	1
	Sig. (2-tailed)	.876	.510	
	N	120	120	120

****Correlation is significant at the 0.01 level (2-tailed).**

The relationship between students' consideration sets of Institutes of Technology, Universities and Colleges of Education, was investigated using Pearson product-moment correlation coefficient. Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity.

For Institutes of Technology, Universities and Colleges of Education, assuming that the Null Hypothesis is true, as $p > 0.05$, we fail to reject the Null Hypothesis.

The result is NOT SIGNIFICANT. There is not a positive linear relationship between all three college categories. However from the results above we can see that there is a correlation ($r = .435$) between Institutes of Technology and Universities. Therefore, if we consider Institutes of Technology and Universities the result is SIGNIFICANT. There is a positive linear relationship. Therefore the Null Hypothesis is partially rejected.

4.4.20: HYPOTHESIS 20

$H20_0$: There is no relationship between the colleges in the students' choice sets

$H20_1$: There is a relationship between the colleges in the students' choice sets

Table: 4.4.20: CHOICE SETS: CORRELATIONS BETWEEN COLLEGES

		INSTITUTES OF TECHNOLOGY	UNIVERSITIES	COLLEGES OF EDUCATION
INSTITUTES OF TECHNOLOGY	Pearson Correlation	1	.285(**)	.070
	Sig. (2-tailed)		.002	.447
	N	120	120	120
UNIVERSITIES	Pearson Correlation	.285(**)	1	.087
	Sig. (2-tailed)	.002		.342
	N	120	120	120
COLLEGES OF EDUCATION	Pearson Correlation	.070	.087	1
	Sig. (2-tailed)	.447	.342	
	N	120	120	120

****Correlation is significant at the 0.01 level (2-tailed).**

The relationship between students' choice sets of Institutes of Technology, Universities and Colleges of Education, was investigated using Pearson product-moment correlation coefficient. Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity.

For Institutes of Technology, Universities and Colleges of Education, assuming that the Null Hypothesis is true, as $p > 0.05$, we fail to reject the Null Hypothesis.

The result is NOT SIGNIFICANT. There is not a positive linear relationship between all three college types. However from the results above we can see that there is a correlation ($r = .285$) between Institutes of Technology and Universities. Therefore, if we consider Institutes of Technology and Universities the result is MODERATELY SIGNIFICANT. There is a positive linear relationship. The Null Hypothesis is partially rejected.

SUMMARY

Chapter Four covered the data analysis from the study. Firstly, there was the establishment of Cronbach's alpha for the measures. Secondly, there was the descriptive statistics including frequency distribution of the variables, and thirdly, there the mean and standard deviation were shown. Finally the results of the hypotheses testing were presented. The following is a list of the hypotheses that were accepted.

HYPOTHESIS	FINDINGS
$H1_{1a}$: $\mu_1 > \mu_0$	Students' have high levels of involvement with regards to the college choice decision making process.
$H2_1$: There is a positive linear relationship between students' perceived risk and involvement	The greater the perceived risk of making a poor choice, the greater the level of involvement in the decision making process.
$H3_1$: There is a positive linear relationship between students' involvement and their intensity of search for information	The greater the level of involvement in the decision making process, the more intense will be the search for information about colleges.
$H4_1$: There is a positive linear relationship between the intensity of search for information and the students' perceived benefits of information search for college information	The greater the search for information about colleges, the greater the perceived benefits resulting from the search.
$H5_1$: There is a positive linear relationship between students' perceived risk and their intensity of search for information	The greater the perceived risk, the more intense will be the search for information to reduce the risk of making a poor choice.
$H6_1$: There is not a positive linear relationship between students' search intensity and their perceived knowledge	Higher levels of search are associated with higher levels of knowledge as a result of the search.

HYPOTHESIS	FINDINGS
$H7_1$: There is a positive linear relationship between students' perceived risk and perceived benefit	The greater the perceived risk of making a poor choice, the greater the perceived benefits associated with gathering information to reduce the risk.
$H8_1$: There is a positive linear relationship between students' involvement and their perceived knowledge	The higher the level of involvement, the higher the levels of knowledge acquired during the search process.
$H9_1$: There is a positive linear relationship between students' knowledge and perceived risk	High levels of knowledge are associated with high levels of perceived risk. Students who acquire more knowledge do not perceive the decision as less risky.
$H10_1$: There is a negative linear relationship between students' search intensity and perceived cost	High levels of search are associated with high levels cost of the search. Students who search more intensely for information will perceive that it will cost more to do so.
$H11_1$: There is a negative linear relationship between students' time pressure to make a decision and their involvement	High levels of time pressure are associated with low levels of involvement. Hence, students who are under pressure to make decisions quickly will have low levels of involvement in the decision making process.

HYPOTHESIS	FINDINGS
$H12_1$: There is a negative linear relationship between students' time pressure and search intensity	High levels of time pressure are associated with low levels of search. Hence, students who are under pressure to make decisions quickly will have low levels of search for information.
$H13_1$: All factors are not of equal importance to students' when choosing a college	The most important factor when choosing a college is 'interest in the course' offered by the college. The 'relevance of the course to the students chosen career' is the second most important factor. The type of 'course offered' is the third most important factor.
$H14_{1a}$: $\mu_1 > \mu_0$	Students' score high on the normative dimension of the CSII Scale. Therefore, they are susceptible to normative influence.
$H14_{2a}$: $\mu_2 > \mu_0$	Students' score high on the informational dimension of the CSII Scale. Therefore, they are susceptible to informational influence.
$H14_{3a}$: $\mu_1 > \mu_0$	Students' score high on the CSII Scale. Therefore, they are susceptible to interpersonal influence
$H15_1$: All the information received from the various sources is not of equal use to students when choosing a college	The most useful information comes from 'Guidance Counsellors' followed by 'Open Days' and 'College Reps'.

HYPOTHESIS	FINDINGS
$H16_1$: All the advice received from interpersonal sources is not of equal importance to students when choosing a college	The most important interpersonal source is the 'career guidance counsellor and/or teacher(s) from school'. This is closely followed by 'parents and siblings'. The third most important source is 'friends or peers'.
$H17_{1a}$: Student's use of interpersonal sources of information is more than their use of non-personal sources of information	Students' use more interpersonal sources than non-personal sources of information.
$H18_{1a}$: $\mu_1 > \mu_0$	Students use the Compensatory Heuristic
$H18_{4a}$: $\mu_4 > \mu_0$	Students use the Lexicographic Heuristic
$H18_{16}$: There is a positive relationship between the compensatory and lexicographic heuristics	Students use a combination of both the Compensatory and Lexicographic decision rules.
$H19_1$: There is a relationship between the colleges in the students' consideration sets*	*Hypothesis partially accepted. There is a relationship between Universities and Institutes of Technology only.
$H20_1$: There is a relationship between the colleges in the students' choice sets*	*Hypothesis partially accepted. There is a relationship between Universities and Institutes of Technology only.

CHAPTER FIVE

REVIEW OF FINDINGS

INTRODUCTION

This thesis incorporates the decision making and information search process of Leaving Certificate Students choosing third level courses in Ireland. The theoretical framework is based around stages one to three of the five-stage Consumer Decision Making Process as defined by Sheth, Mittal and Newman (1999) and Schiffman and Kanuk (2000).

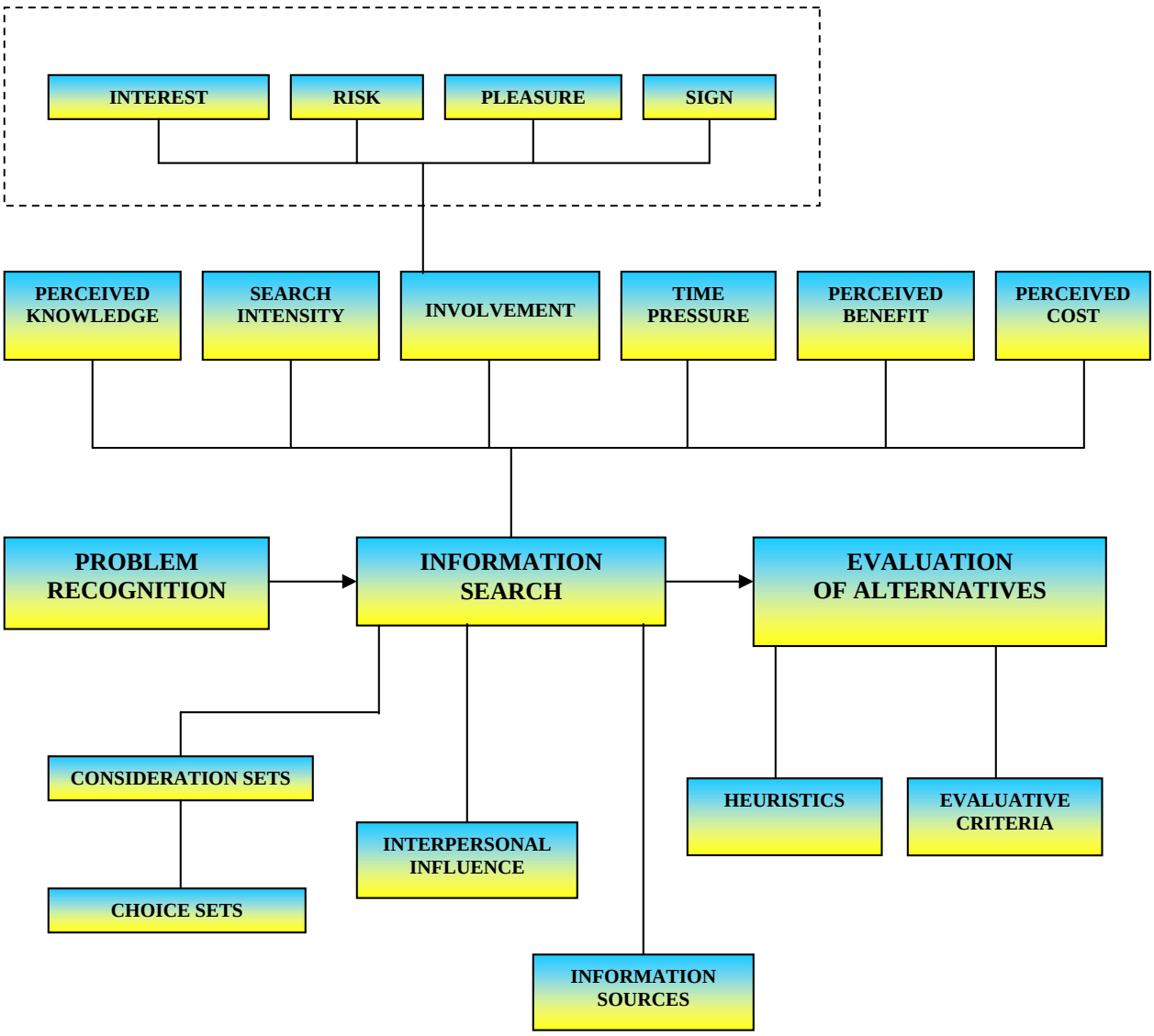

Figure 5-1: THEORETICAL FRAMEWORK

5.1. PROBLEM RECOGNITION

Problem recognition occurs when the consumer i.e. Leaving Certificate Student identifies a discrepancy between his/her actual and desired state. For Leaving Certificate students, need recognition occurs when the student reaches the realisation that s/he wants to go to third level after completion of their secondary school studies. Therefore the student will have to go through the third level college application process.

Students were asked how long before making the final decision did they actually decide that they wanted to go to college. From the results shown in Table 5.1 below, it can be seen that thirty percent of students enter the *Problem Recognition Stage* over 104 weeks (2 years) before making their final decision. Just over twenty-one percent of students enter this stage 52-104 weeks (1-2 years) previous to making any decision and almost seventeen percent between 24-52 weeks (6 months and 1 year). Ten percent of students enter the stage 13-24 weeks (3-6 months) before making a decision, with just over nine percent entering 7-13 weeks previously. A little over four percent enter between 3-7 weeks, five percent between 1-3 weeks and just over three percent enter up to 1 week.

Table 5.1: PROBLEM RECOGNITION – TIME FRAME

	%
1 week	**3.3**
1-3 weeks	**5.0**
3-7 weeks	**4.17**
7-13 weeks	**9.17**
13-24 weeks	**10.0**
24 to 52 weeks	**16.67**
52-104 weeks	**21.67**
More than 104 weeks	**30.0**
Total	**100.0**

The research has shown that for the majority of applicants the decision to go to college is made, and hence the *Problem Recognition Stage* is entered, long before application.

5.2. INFORMATION SEARCH

This study is concerned with the external information search of prospective students. External information search is carried out by a prospective student in the college choice process to solve the problem recognised in the *Problem Recognition* stage. Once the need has been recognised, students will search for information about various alternative ways of solving the problem. This search seldom includes every college in Ireland. Rather students consider only a select subset of colleges i.e. *the consideration set*. Before students search for information in order to solve their decision making problem of which college(s) to choose, they must first identify that information search will be helpful in solving the problem. From the literature the following were found to be important antecedents of information search: the level of involvement; perceived risk, time pressure, cost, benefits and knowledge; the search intensity; sources of information.

The following section discusses the results of the hypothesis tests relating the external information search.

5.2.1. HYPOTHESES AND FINDINGS RELATING TO EXTERNAL INFORMATION SEARCH

$H19_1$: There is a relationship between the colleges in the students' consideration sets

The consideration set is those colleges which the student would actually consider attending and for which they would search for information. Consideration Set consists of relevant alternatives which the decision maker takes into consideration (Shocker, Ben-Akiva, Boccara & Nedungadi, 1991).

The findings here show that there is a relationship between Universities and Institutes of Technology in students' consideration sets. Consequently, students who consider applying to Universities also consider applying to Institutes of Technology and hence, they gather information accordingly. However, they do not consider applying (and therefore gathering information) to the Colleges of Education. Hence, the Colleges of Education are not as

prominent in students' minds during the college choice process as Universities and Institutes of Technology.

$H20_1$: There is a relationship between the colleges in the students' choice sets

Choice Set is the subset of alternatives which the decision maker considers "immediately prior to choice." (Shocker et al., 1991, page 183)

It was found that there is a relationship between Universities and Institutes of Technology in students' choice sets. Therefore, we can conclude that students who apply to Universities also apply to Institutes of Technology and vice versa. However, students that follow this application pattern tend not to include Colleges of Education in their choice sets. Hence, students when filling out their CAO forms generally choose Universities and Institutes of Technology over Colleges of Education.

$H1_{1a}$: $\mu_1 > \mu_0$ i.e. students' have high levels of involvement with regards to the college choice decision making process.

Students' involvement was measured using the Consumer Involvement Profile proposed by Kapferer and Laurent (1985a, b and c, 1993) (See Section 4.3.4 Chapter Four, page 17) The conditions related to involvement normally involve perceived risk, the expression of one's personality, the perceived importance and the hedonic value of the stimulus (McWilliam, 1997). Therefore, involvement should be examined as a multi-dimensional construct since a single dimension would seem insufficient to capture the richness of the concept.

An understanding of the sources of involvement is also important to provide a dynamic picture of the consumer's subjective situation. This supports the thought of the CIP advocated by Kapferer and Laurent, (1985c) who recommended that involvement should be analysed along its five facets in order to better explain the nature of the relationship between a consumer and a product category. Kapferer and Laurent (1985a, page 52) state that "the full profile must be known because different facets have different influences on selected aspects of consumer behaviour."

Students' Consumer Involvement Profile was measured for the college choice decision making process. From the results we can conclude that they score high on the CIP indicating a high level of involvement in the process.

$H2_1$: There is a positive linear relationship between students' perceived risk and involvement

Risk has been proposed as precursor to, and an element of involvement (Choffee & McLeod, 1973; Kapferer & Laurent, 1985). Involvement is a basic concept in the explanation of the variation of decision processes adopted by consumers. Zaichkowsky (1985, page 342) defined involvement as "the personal relevance of an object based on inherent needs, values and interests." Several studies have found that involvement is positively associated with risk (Celsi & Olsen, 1988; Chaudhuri, 2000; Dowling, 1986; McDougall, 1987). According to Larouche, Bergeron & Goutaland (2003, page 126) "consumers are generally more involved in the buying of services because:

- The production of a service requires human interactions, which introduces a degree of variability in the outcome;
- Service delivery is often not possible without the participation of the consumer; and
- There is usually no transfer of ownership, so the buyer is unable to sell or return the merchandise"

Zeithaml (1981) suggests that involvement to search for information increases with the intangibility of the product. Risk reduction is also linked to involvement as high involvement with a single brand is commonly known as brand loyalty which has been shown to be a major risk reducer (Roselius, 1971). Thus, for a highly intangible product like higher education, the greater the perceived risk associated with the choice, the greater the level of involvement (Murray, 1990).

The findings here concur with previous research. Students' who perceive the college choice decision as being risky become more involved in the decision making process.

$H3_1$: There is a positive linear relationship between students' involvement and their intensity of search for information

Highly involved individuals are more likely to actively search for information (Bloch, Sherrell & Ridgeway, 1986). Information search activities may increase in intensity with the level of involvement (Slama & Tashchian, 1985). Beatty and Smith, (1987) put forward an inverted U shaped curve for external information search in terms of the consumers levels of involvement. In theory, involvement should be associated with external information search. On the other hand, others have found that external information search is lower for consumers at both ends of the involvement scale (Moorthy, Ratchford & Talukdar, 1997).

When making a buying decision, consumers who are highly involved will go through an extended problem solving process: recognizing the problem, actively searching for information, evaluating the alternatives, and then making the purchase decision (Clarke & Russell, 1978). Highly involved consumers are likely to use more criteria (Mitchell 1980); search for more information using available external information sources (Beatty & Smith 1987**;** Venkatraman 1988). McColl-Kennedy and Fetter (2001, page 93), state that involvement has an impact of search. They found that 'involvement was quite important when influencing consumers' propensity to put effort into the search activities' for a credence service.

In terms of college choice, prospective students' information search is expected to be positively related to their levels of involvement. This was found to be the case here.

The findings here correspond with previous research. Students' are highly involved in the decision making process will have high levels of search intensity.

$H4_1$: There is a positive linear relationship between the intensity of search for information and the students' perceived benefits of information search for college information

Search benefits are defined as outcomes that increase one's utility or provide value by facilitating achievement of higher level goals or values (Olshavsky, 1979). According to the cost-benefit analysis information search, consumers would search for more information if they perceived additional information would assist the decision making process. Prior

research found Srinivasan and Ratchford (1991) found that perceived benefits were positively related to intensity of external information search.

The findings here concur with previous research. Students' will increase their search for information if they perceive that this will be beneficial to their decision making.

$H5_1$: There is a positive linear relationship between students' perceived risk and their intensity of search for information

According to Sundaram and Taylor (1998), information search is expected to assist consumers in making satisfactory purchase decisions, and thereby remove some of the risks associated with the purchase. Their results indicated that perceived risk increases search intensity. Hugstad, Taylor and Bruce (1987) and Capon and Brucks (1980) found that more sources of information were sought in high-risk purchasing situations (like the college choice process). Moore and Lehmann (1980), Lantos (1980), Topol (1981), and Swartz and Stephens (1984) had similar findings. Consumers appear to perceive more risk in the purchase of services than they do for goods (Murray, 1991).

The findings here concur with previous research. Students who perceive the college choice decision as being risky will intensity the search for information.

$H6_1$: There is a positive linear relationship between students' search intensity and their perceived knowledge

Beatty and Smith (1987) defined external search intensity as the degree of attention, perception, and effort directed towards obtaining environment information or information related to the specific purchase under consideration. Since a significant part of search for information in the college choice process involves looking through college handbooks, prospectus etc that provide college related information, 'product' knowledge plays an important role in information search during the college choice process. According the Beatty and Smith, (1987), knowledge reduces search effort or intensity as knowledgeable consumers because of their improved ability to simplify the decision making process, search more efficiently and curtail search to relevant information.

Contrary to Beatty and Smith's findings, search intensity was found to be positively related to product knowledge for Leaving Certificate Students. Information processing studies may offer an explanation for this finding. Consumers who vary in knowledge process information differently and adopt distinct processing heuristics or decision rules (Bettman & Park 1980; Maheswaran & Sternthal, 1990) because of their variation in ability to process the information acquired. According to Bettman and Park (1980), consumers who are less knowledgeable because of the absence of a well developed previous memory base are less motivated to search and perceive the search for information to be overpowering, especially when the decision was considered a complex one. On the contrary, more knowledgeable consumers because of their ability to process information better show greater motivation to search. Also, the knowledgeable consumers are able to process product related information more extensively than less knowledgeable consumers (Maheswaran & Sternthal, 1990). This finding is similar with that of Srinivasan and Ratchford (1991) and Punj and Staelin (1983) who found that good deals, purchases and cost-savings aspects were significantly positively related to information search for cars. This shows a similar relationship between services and goods, indicating that students will search for ways to differentiate and identify choices of colleges if they feel that the information can assist them in doing so (Schmidt & Spreng, 1996).

Given that a major part of information search during the college choice process involves looking at college prospectus, handbooks, articles etc that contain college related information, the level of 'product' knowledge plays an important role in determining a student's ability to understand the information and accordingly determines the search intensity. The function of knowledge in information search and processing during the college choice process may even be greater as the opportunity to examine the college 'product' prior to purchase is limited if impossible.

$H7_1$: There is a positive linear relationship between students' perceived risk and perceived benefits of search

The perception of risk is positively related to the perceived benefits of search. The reason for this is that as the uncertainty about the outcome of the college choice increases, students tend to engage in greater information search (as found in Hypothesis 5, page 7) with the primary expectation that the search will enable them to reduce the risk. Overall,

as the level of risk associated with the purchase increases the expected payoff from the search will also increase (Srinivasan & Ratchford, 1991).

The results here are similar to those of Srinivasan and Ratchford (1991). The results show that perceived risk increases search and perceived benefits of search. This suggests that students engaged in greater information search because of the belief that this greater search would help them acquire better information about colleges resulting in them making a better choice of colleges.

$H8_1$: There is a positive linear relationship between students' involvement and their perceived knowledge

Involvement is expected to have a positive impact on product knowledge as highly involved consumers are more likely to seek information about the product (Block, Sherrell & Ridgway, 1986). According to Capon and Burke (1980), the outcome of search is enhanced product knowledge, therefore involvement and knowledge will be positively related.

The findings here concur with previous research. Students' who are more involved in the college choice process will have higher perceived knowledge than those who are not involved.

$H9_1$: There is a positive linear relationship between students' perceived risk and perceived knowledge

It was proposed that students who perceive they have little knowledge of colleges would be likely to perceive that the decision is risky. Increased knowledge could be a means for the student to lower the risk of choosing the wrong college. Students have little knowledge about colleges at the beginning of the search process, and therefore their perceived risk of making a bad decision is high. They would consequently search for more information to reduce the risk of making a poor choice. Therefore, it was expected that there is not a positive relationship but rather a negative relationship between risk and knowledge.

Contrary to expectations, it was found that risk and knowledge were positively related. This finding, however, contradicts that of Srinivasan and Ratchford (1991), who found that

in the case of cars, consumers who had more product knowledge perceived there was less risk in their purchase. This suggests an important difference between products and services. It could be that because the 'product' offered by colleges is a 'service', and services are intangible, additional knowledge about colleges is not felt to lower the risk associated with the decision. Students may have felt that there were other benefits of information search and in having more knowledge, for example, available alternatives, but lowering risk was not one of the benefits.

$H10_1$: There is a positive linear relationship between students' search intensity and perceived cost

Punj and Staelin (1983) found that cost of external information search was negatively related to information search. In contrast, Srinivasan and Ratchford (1991) found that cost was positively related to information search.

The findings here do not concur with those of Punj and Staelin (1983). However, they do concur with those of Srinvasan and Ratchford (1991). Students cost of information search increased as the level of search increased.

$H11_1$: There is a negative linear relationship between students' time pressure to make a decision and their involvement

And hence,

$H12_1$: There is a negative linear relationship between students' time pressure and search intensity

Involvement leads to greater search (see Hypothesis 3, page 5-6). Beatty and Smith (1987) found that time pressure reduces the amount of search, and therefore the level of involvement. Consequently there is a negative relationship between time pressure and involvement and between time pressure and search intensity.

This was found to be the case here. Students' who are under time pressure will not be highly involved, thus leading to a reduction in search intensity and effort.

Students were measured on the Consumer Susceptibility to Interpersonal Influence Scale proposed by Bearden, Netemeyer and Teel (1989). The following hypotheses were accepted in relation to this:

$H14_{1a}$: $\mu_1 > \mu_0$. Students' are susceptible to normative influence

and

$H14_{2a}$: $\mu_2 > \mu_0$. Students' are susceptible to informational influence

and hence,

$H14_{3a}$: $\mu_3 > \mu_0$. Students' are susceptible to interpersonal influence

Students' were found to be susceptible to interpersonal influence when making purchasing decisions.

Students were asked how useful they found any information they received from a variety of sources. The following hypothesis was accepted:

$H15_1$: All the information received from the various sources is not of equal use to students when choosing a college

It was found that not all the information received from the various sources was of equal use to students when choosing a college. Table 5.2.1 shows the sources that provided information students deemed to be useful during the decision making process.

Table 5.2.1.: USEFUL INFORMATION SOURCES

1	**CAREER GUIDANCE COUNSELLOR**	**6.55**	**.889**
2	**OPEN DAY AT THE COLLEGE**	**5.69**	**1.663**
3	**VISIT TO YOUR SCHOOL BY COLLEGE REPRESENTATIVE(S)**	**4.99**	**1.789**
4	**GUIDE TO THIRD LEVEL COLLEGES**	**4.66**	**1.872**
5	**COLLEGE WEBSITE**	**4.55**	**1.925**

Guidance counsellors provided the most useful information to students. They fall into the independent sources category and are considered product or college experts (Sheth et al., 1999, 2004). Coughlan (2002) stated that information from schools' careers guidance counsellors was important to prospective NUI Maynooth students.

College guides (4th most useful) are also an independent source. These sources typically provide a description of product attributes or service benefits (Beales, Mazis, Salop & Staelin, 1981). Such guides are commonly used sources of information by prospective students. Connor et al. (1999) found these publications were considered the most useful sources of information about colleges

Information obtained from college representatives was the third most useful to students. This concurs with Chapman (1981) who stated that school visits by college representatives are the most effective recruiting activities. He also said that students who expect to go on to college are more likely to search for college information from such sources.

The college website was the fifth most useful source of information for students. Coughlan (2002) found that this was an important source of information for prospective students.

$H16_1$: All the advice received from interpersonal sources is not of equal importance to students when choosing a college

Referring to hypothesis **$H16_1$**, Table 5.2.2 on page 166 shows the interpersonal sources students' found to be important. Important to note here is that a large proportion of previous research found that parents and family (2nd here) are usually the most important interpersonal influence for students thus, ranking higher than guidance counsellor (1ST here). However, from the table it can be seen that the margin of difference between these two sources is minimal (0.06).

Table 5.2.2: INTERPERSONAL SOURCES OF INFORMATION – RANKED BY MOST IMPORTANT SOURCE

		Mean	Std. Deviation
1	GUIDANCE COUNSELLOR AND/OR TEACHER(S) FROM SCHOOL	6.59	.682
2	PARENT(S), BROTHER(S) AND/OR SISTER(S)	6.53	.608
3	FRIENDS/PEERS	6.05	.973
4	STUDENT(S) ALREADY ENROLLED	5.27	1.477
5	PEOPLE WHO PREVIOUSLY ATTENDED THE COLLEGE	5.10	1.475
6	COLLEGE RECRUITERS/REPRESENTATIVES	4.97	1.887
7	MEMBERS OF A PROFESSIONAL BODY	4.70	1.898

The most important source of advice is guidance counsellor and/or teacher(s) from school. This concurs with previous findings where White, Stratford, Thomas and Ward (1996) propose that advice from careers professionals can influence the choice of course. According to Payne (2003) good quality careers education and guidance can increase young people's careers-related skills. Kidd and Wardman (1999) conclude that evidence exists from US and UK to show that career education and guidance affects decision making skills, self awareness, opportunity awareness, certainty of decision making and decisiveness. Authors who have found guidance counsellors and teachers to be an important interpersonal influence on college choice include: Connor, Burton, Pearson, Pollard, and Regan (1999); Macrae, Maguire and Ball (1996); Morris, Lines and Golden (1998); Stuart, Tyers and Crowder (2000); Taylor (1992).

The second most important source of advice for students is parents and siblings. This concurs with the literature. Some studies report that parents' encouragement and support is the primary factor in the college choice process at the 'predisposition' and 'search' stages but is less important at the 'choice' stage (Cabrera & La Nasa, 2000). Research by Hanson and Litten (1982) and Kallio (1995) found the family to be an influence on college choice. Authors who have found parents and family to be an important influence on college choice include: Boyd, Chalmers and Kumekawa (2001); Cabrera and La Nasa (2000); Choy, Horn, Nunez and Chen (2000); Furlong (1993); Mortimore (1991); Kelly (1989); Kern (2000); Brooks (2004); Keys and Fernandes (1993); Macrae, Maguire and Ball (1996); Mangan, Adnett and Davies (2000); Mann (1988); Maychell and Evans (1998); Payne (2003); Stage and Hossler (1989); Taylor (1992); Foskett and Hesketh (1997); Walck and Hensby (2003).

Friends and peers are the third most important source of advice for students. This concurs with the literature. Martin (1996) found that friends ranked third out of nine information influences. Other research has shown that the peer group may also play a major function in decision making about college, affecting aspirations during compulsory schooling (Hemsley-Brown, 1996; Macrae et al., 1996) and during later stages of decision making (Moogan, Baron & Harris, 1999). Roberts and Allen (1997) found that the peer group was the most common source of influence after the young person's family.

The importance of the interpersonal sources in Table 5.2.2 on page 166 concurs with the literature. Interpersonal communication includes word-of-mouth communication. This is a very important component of interpersonal communication. Christie, Munro and Fisher (2004) put forward that the most useful information recognises the fact that decisions are made in complex social networks that function using interpersonal communication.

Boyd and MacDowall (2003) found that the members of these networks influence the college choice process. At the senior secondary school level school teachers and career counsellors have the most influence. They found that parents too have a major influence on the decision. Friend and peers of prospective students also considered members of this interpersonal information network. (Boyd & MacDowall, 2003); Christie et al., 2004).

$H17_{1a}$: Student's use of interpersonal sources of information is more than their use of non-personal sources of information

$H17_{1a}$ concurs with the literature. Mass information campaigns like advertising are less helpful than third level institutions would like. Maxwell, Cooper and Biggs (2000) suggest that newspapers, radio and television are not influential on students' decisions. Connor, Burton, Pearson, Pollard and Regan (1999) found in the UK that only a small portion of their sample used non-personal sources of information. Boyd, Chalmers and Kumekawa (2001) found that students preferred personal to impersonal information. This finding also ties in with **$H14_{3a}$** on the previous page, where it was found that students are susceptible to interpersonal influence when making purchasing decisions.

5.3. EVALUATION OF ALTERNATIVES

The next stage of the Consumer Buying Process is that this study examines is Evaluation of Alternatives.

5.3.1. EVALUATION OF THIRD LEVEL INSTITUTIONS – HYPOTHESES AND FINDINGS

Students were asked how much time they spent evaluating third level institutions. The results are shown in Table 5.3.1.

Table 5.3.1: TIME SPENT EVALUATING INSTITUTIONS

TIME SPENT	%
1 week	1.67
1-3 weeks	3.33
3-7 weeks	18.33
7-13 weeks	23.33
13-24 weeks	19.17
24 to 52 weeks	18.33
52-104 weeks	7.50
More than 104 weeks	8.33
Total	100.0

Just over twenty-two percent of students spend between 7-13 weeks evaluating colleges and almost one fifth of students spend between 13-24 weeks (3-6 months) evaluating alternatives. A little over eighteen percent spend between 24-52 weeks (6 months – 1 year) with the same percentage spending between 3-7 weeks. Just over eight percent of students spend more than 104 weeks (2 years) and seven and a half percent spend between 52-104 weeks (1-2 years). A little over three percent spend between 1-3 weeks and fewer than two percent spend up to 1 week evaluating colleges.

The research has shown that a large proportion of students spend considerable time in the *Evaluating of Alternatives Stage.*

5.3.2. CRITERIA USED FOR CHOOSING A COLLEGE

Why Leaving Certificate Students choose between various third level institutions depends on the criteria developed in the college choice process. These criteria will be of varying importance to different students. The following hypothesis was accepted**:**

$H13_1$: All factors are not of equal importance to students' when choosing a college

Table 5.3.2 shows the criteria students' rated the most important when choosing a college.

Table 5.3.2: CRITERIA USED FOR CHOOSING COLLEGE

		Mean	Std. Deviation
1	INTERESTED IN THE COURSE	6.67	0.81
2	RELEVANCE OF THE COURSE TO YOU CHOSEN CAREER	6.59	0.88
3	COURSES OFFERED	6.53	0.91
4	JOB PLACEMENT OPPORTUNITIES AND THE ABILITY TO GET A GOOD JOB ON GRADUATION	6.32	0.88
5	TYPE OF QUALIFICATION(S)	6.29	1.05
6	BEING ABLE TO ATTAIN THE NECESSARY LEAVING CERTIFICATE RESULTS TO GET A PLACE	6.07	1.19
7	OPPORTUNITIES TO MEET OTHER PEOPLE AND SOCIALISE	5.75	1.16
8	EDUCATIONAL FACILITIES	5.50	1.38
9	LOCATION	5.40	1.71
10	IMAGE OR REPUTATION	5.32	1.48
11	EXTRA CURRICULAR ACTIVITIES	5.09	1.56
12	NON-ACADEMIC FACILITIES	4.86	1.40
13	COSTS	4.81	1.86
14	AVAILABILITY OF FINANCIAL AID, GRANTS AND STUDENT WELFARE PROGRAMS	4.74	1.74

It can be seen that the most important factor when choosing a college is 'interest in the course' offered by the college. The 'relevance of the course to the students chosen career' is the second most important factor considered by students when choosing a college. The type of 'course offered' is the third most important factor.

These three factors relate to the course and field of study available to prospective students'. This is consistent with the literature where there is strong evidence that interest in a course or subject area strongly influences students' choice of one institution over another. This is so principally as subject area choice is often a proxy for career aspirations (James, Baldwin and McInnis, 1999; Maxwell, Cooper, & Biggs, 2000; Cabrera & La Nasa, 2000).

In major surveys, James and his colleagues found that students focus primarily on fields of study when choosing their third level institutions (James et al., 1999; James, 2000b; James, 2001).

In another study tracing retention patterns between 1994 and 1999, McInnis et al. (2000) found that 94 percent and 96 percent of respondents said they came to university because they wanted to study in a field that really interested them. Other researchers (Le Claire, 1988; Martin, 1996; Soutar & Turner, 2002) reported that a chosen field of study was a prime reason for choosing a third level institution.

Type of course is the most important factor students look for when choosing a college according to the following authors: Lin, 1997; Erdmann, 1983; Saunders, Hamilton & Lancaster 1978; Taylor, 1994; Walker, Cunnington, Richards & Shattock, 1979; Discenza, Ferguson, & Wisner, 1985.

In the USA researchers confirmed the course as a key factor in decision making (Keller & McKeown, 1984; Kern, 2000). Confirmation about the course or field of study, but from another point of view, comes from two retention studies carried out in the United Kingdom (Yorke, 1999; Christie et al., 2004). Both studies found that students were withdrawing from college because they had chosen the wrong course and lost interest as a result.

In Ireland, Claffey (2001) and Murphy (2003) both found in their studies that the course offered is an important factor for prospective students. A Forfas, MRBI, study in 2002 has a similar finding.

5.3.3. HEURISTICS USED BY STUDENTS WHEN EVALUATING ALTERNATIVES

The following hypotheses were accepted in relation to students' use of heuristics when evaluating alternatives.

$H18_{1a}$: $\mu_1 > \mu_0$ Students use the Compensatory Heuristic

$H18_{4a}$: $\mu_4 > \mu_0$ Students use the Lexicographic Heuristic

It was found that students use both of these choice rules the most during the decision making process.

$H18_{16}$: There is a positive relationship between the compensatory and lexicographic heuristics

There is a positive linear relationship between the Compensatory and Lexicographic decision rules. From this result we can conclude that students' use a combination of the Compensatory and Lexicographic heuristics when making a decision and hence, that student's are more likely to use complex decision making rules when choosing colleges.

For an important decision like college choice, a student (consumer) "might first use a non-compensatory model and then, to further identify the choice, use a compensatory model. Customer researchers Bettman and Park have described customer decision process as a two stage process, termed **phased decision strategy.**" (Sheth et al., 1999, page 543)

In the first stage or alternative elimination stage, the set of alternatives is narrowed for closer comparisons. In the next stage or alternative selection stage, the smaller set of alternatives is additionally scrutinised (Sheth et al., 1999). "The objective of the first stage is thus to identify the acceptable alternatives, whereas the second stage is meant to identify the best." (Sheth et al., 1999, page 543)

Non-compensatory models allow for the quick examination of a large number of alternatives because they are easier to perform. In the next stage students can then employ the compensatory model more efficiently (Sheth et al., 1999). "If one or more attributes are matching across the alternatives, one simply ignores this attribute and applies the

compensatory model on the smaller set of attributes. In this way customers (students) can take advantage of the compensatory model to make an optimal decision without incurring the information-overload that would have accrued if all of the initially available large number of alternatives were to be processed by the compensatory model throughout." (Sheth et al., 1999, page 543)

5.4. PURCHASE

It should be noted that the *purchase* is dependent on uncontrollable factors. Leaving Certificate exam results, CAO entry points and entrance requirements are factors that students have no control over. Once the student gets their results, and the entry points have been determined by the CAO, the student will receive an offer of a place on a Level 8 (honours degree) course and/or an offer of a place on a Level 6/7 (ordinary degree/certificate) course (provided that they have the required entry points). The student then has to make a final decision and choose one of the offers.

5.5. POST PURCHASE BEHAVIOUR

While students' decisions are primarily affected by their Leaving Certificate results and therefore their CAO points, there will always be a percentage of students who do not get their first preference course, but decide to accept what they are offered. For example a student may have missed out on a Level 8 course and accept a place on a Level 6 or Level 7 course instead. Some students in this situation will make the most of their course whilst others may eventually become dissatisfied, which in turn can result in *post purchase dissonance*. Students must be motivated to pursue a course successfully, rather than being on a course simply because they have no other options. The dissatisfied student may eventually drop out of college altogether. Conversely, this student may try to lessen their dissatisfaction by focussing on the reality that if they finish the Level 6/7 course, they may be able to progress to a Level 8 course, and therefore satisfy their initial *need*.

SUMMARY

The Theoretical Framework (Figure 5-1, page 156) and hence, the Consumer Decision Making Process (Figure 1-1 page 5) contributes a useful model with regards to the significant stages through which potential purchasers (i.e. Leaving Certificate Students) of tertiary education in Ireland would proceed. Therefore, we can conclude that Leaving Certificate Students behave as consumers of higher education. The focus of this study was on the first three stages of the process. It should be noted that the stages are not mutually exclusive, because there is an overlap between them for certain students depending on their circumstances. Nevertheless, all students do at some point in time progress through the stages of deciding what college(s) to consider, followed by which one(s) to apply to, with the objective of attending one of the colleges.

Once students have decided that they want to go to college (*Problem Recognition*) they progress to the *Information Search* stage by gathering information from a variety of sources including: career guidance counsellors; open days; college representatives; third level guides and college websites. It was found that students use more *interpersonal* than non-*personal* sources and are *susceptible to interpersonal influence*. The most important interpersonal sources are *guidance counsellors,* closely followed by *parents and siblings* with *friends or peers* being the third most important source.

It was established that students are highly involved and extensively search for information during the college choice process. The reason for this is that they perceive the decision to be a risky one. The level of risk is increased by the intangibility of the *service*. The greater the perceived risk associated with making a poor decision the more involved the students will become; the more intense will be the search for information resulting in higher levels of knowledge. However, this increase in knowledge levels does not reduce the risk associated with the decision. The increased search is associated with greater benefits from undertaking the search. Conversely, time pressure is associated with a reduction in the level of involvement and low levels of search intensity.

After completing this stage students then progress to the *Evaluation of Alternatives* stage which includes the use of heuristics or decision rules. Factors students consider important in the evaluation are: *interest in the course; relevance of course to chosen career; type of courses offered; job placement opportunities and ability to get a good job on graduation;*

type of qualification; being able to attain the necessary leaving certificate results to get a place on the course.

CHAPTER SIX

IMPLICATIONS
LIMITATIONS
AND
RECOMMENDATIONS

INTRODUCTION

This final chapter discusses some implications of the findings for third level institutions and policy makers. Limitations of the study and possible directions for future research are also discussed.

5.1. IMPLICATIONS

Dill (1991, page 183) pointed out that: "If academic institutions are engaged in a competitive market competing for scarce financial resources from multiple and shifting supporters, competing for able students and faculty, competing for social prestige – then it is argued they should adopt the managerial techniques of market-based business: strategic planning, marketing, and management control."

Therefore, in response to these constraints, administrators of institutions of higher education could adopt business-related strategies. Specific strategies that could be implemented to reduce constraints from the environment of higher education include: enrolment management, marketing or resource attraction, strategic planning, and total quality management, and several efforts to ensure accountability.

In responding to the apparently decreasing pool of Leaving Certificate Students, institutions of higher education in Ireland must adopt recruitment strategies. Competition is intense among institutions of higher education for students, and institutions should adopt a proactive approach to the problems of enrolment decline. Consequently, institutions can explore

strategies to confront these problems, and administrators can use the business sector for guidance.

The business world could offer suggestions based on their experience in competitive environments. Institutions need to properly market themselves. An examination of how institutions of higher education can best market their services with the intent of maintaining their market share and, probably, enhancing their enrolments should be undertaken.

However, certain stakeholders in higher education have a somewhat negative or unfavourable attitude towards the concept of *marketing* being applied to higher education and therefore the notion that *students are consumers of a commodity (higher education)*.

In the OECD report on the future of higher education in Ireland, published in 2004, "there is a deep adherence to the principles of the market. It defines higher education fundamentally as a *commodity* that is both marketable in itself and facilitative of business and trade in other areas." (Lynch, 2004, page 8)

An essential component of any market is the exchange of a *commodity* between different people. The extent and quantity of the exchange relation depends on the different needs of the people (consumers). These needs are called *the demand* and the process of action, which fulfils these needs (production), is called *the supply*. In an *open market*, the relationship between supply and demand defines the value or *the price* of the exchangeable good. An important facet of an open market is the concept of the *sovereign consumer*. Consumer sovereignty is consumers making choices one by one, buying one product and not another, transferring their money to some producers and not to others. Consumer sovereignty assumes that consumers are fully aware of their needs and wants, will understand the alternatives available to them, and act rationally in the market place.

Students show signs of consumer sovereignty during the decision process. The student undoubtedly knows what they want as they do make choices. The students also search extensively for information about the *product.* Thus, it would seem to be a practical plan for policymakers to make available what the student wants by increasing supply. In a commodity

market, an increase in supply would lead to a decrease in price and make the product by and large accessible to those who want it.

The Government wants a more equitable higher education system in Ireland whereby those who want to pursue a higher education can do so. Already, the demand for *university* educations is higher than that for other colleges. As a consequence entry points are high and gaining a place is difficult due to the limitations on supply within these *status* colleges. This may make sense from an economic perspective, but it does not support the Governments' policy. Also, these colleges may not like to see the market opened up, as an increase in supply could lead to a decrease in the appeal of their *exclusive* products.

The Government would have to deregulate higher education to facilitate the creation of an *open market* higher education system. Therefore, if the higher education market in Ireland was opened up by the Government tuition fees would need to be reintroduced. However, the Minister for Education recently ruled out the return of under-graduate student fees (HEA, 2005).

The competitive selection process would also have to be changed. Consequently, supply could not be controlled by the allotment of student places in colleges by the Central Applications Office. Evidently, this is an improbable situation in a setting where third level institutions rely on the Government for funding. Higher education in Ireland cannot be viewed as a typical commercial exchange, because as students do not pay a *price* there is no commercial transaction.

To all intents and purposes, the *price* students pay (other than the *student services fee*) to enter a third level institution is their *CAO Points*. The *top end* of the market is defined by very high entry points. In these competitive circumstances, most prospective students are conscious of what might be and what might not be attainable for them. However when prospective students apply to college, they do not know what the exact entry *points* will be, nor do they know what they will accomplish in their exams, even though they may have a good idea. Student thinking operates around a tentative *viable set* of courses-institutions based on their expected academic

achievement, their knowledge of previous CAO entry points, and their confidence in being able to succeed in the chosen courses.

To comprehend student decision making and its implications for marketing requires an understanding of the interaction between students' type of study preferences, course preferences and institution preferences. Students tend to *choose* in that order. For the majority of Leaving Certificate Students' college choices, the *type of course* is the primary factor that they consider during the process. Therefore, student decision making is improved by marketing and information distribution which emphasizes the unique characteristics and overall quality of particular courses offered by third level institutions.

Leaving Certificate Students face a *high risk* decision yet at the same time the *product* is *intangible*. This product, if there is such a concept, includes services, co-produced educational outcomes, and the positional status acquired simply by being selected for certain courses. The provider-consumer relationship between institution and student is prolonged and involves a changing set of expectations, preferences and needs over time. Students seek to reduce the risk by searching and acquiring information. With large amounts of information already available to prospective students the information provided should be more accessible, relevant, and easily understood. A part of the problem is that students are faced with a large amount of college related information, especially during what is a busy and demanding final year for Leaving Certificate Students. Some of the information is difficult to understand as course descriptions and other information can be intricate. The findings showed that students relied more on the advice of significant others like career guidance counselors, parents and siblings more than non-personal sources of information. However, the advice they receive from parents and others could be inaccurate. The information available should be improved, especially in respect of regular, independently validated, information about courses and institutions so as to discourage reliance on less reliable and anecdotal sources. Information should be made available not only to career guidance counsellors, but to parents as they have a significant influence on the final decision of students.

It may be possible to assist the decision making process by providing prospective students with a *checklist* to help them think through the relative importance to their circumstances of a

range of topics such as: choice of subject (e.g. entry requirements, relevance to life after graduation); course structure (e.g. balance between structured tuition, self study, work experience); type of university/college and its environment; sources of income (including loans, availability of student employment, and assistance with budgeting); subsequent career aspirations and expectations. This function of the list would not be to reduce or simplify the decision, but rather to highlight areas they should be looking at when choosing a college. This may also assist students in understanding their own priorities and preferences.

Higher education is clearly an interactive *service* and its quality relies to a significant extent on the suitability of the match of expectations and assurance of both students and institutions. As the academic and social experiences provided by courses are generally predictable, they cannot be examined and sampled in any useful way without an extended engagement with them. Though students search extensively for information, the student as consumer of higher education is inevitably under-informed, because the quality of the experience is far better understood during and after it, rather than before it. Therefore, colleges could introduce more programmes like the University of Limerick "Explore Engineering" summer camp, which is for fourth and fifth year secondary school students. For one week secondary school students' experience college life and the study of engineering.

The information that is made available to students should be easily accessible and provide comparative information on their options, descriptions of courses and institutional characteristics. The information should be accurate and not biased. When students choose a course/college combination they are placing considerable faith in the ability of the college to offer a comprehensive curriculum of suitable quality and relevance. The college prospectus is one important means of making accurate information widely available to prospective students.

However, with intense competition between institutions to attract students, the intention of institutions is to convince prospective students to choose them, so understandably, they will give precedence to their recruitment goals rather than the disclosure of all information. Institutions can be expected to be biased in choosing the features and qualities they emphasize to potential students. An independent body should have control over the creation and dissemination of information that is accurate and indicates significant differences between

courses and third level institutions. That is a decision for higher education policymakers and those in Government. After all, the Government is *paying* for the education, directly through funding and indirectly through the *no fees* policy. They also have a responsibility to the citizens of Ireland to ensure that the quality and integrity of the higher education system is maintained.

The information provided by institutions could be improved through better market intelligence about their market segment. The setting up of *single points of contact* where prospective students could find out about and discuss college issues such as courses, additional costs, support, accommodation, *etc.* This could be done by making best use of technologies like the Internet, and providing better interactive information and decision making aids to help focus and personalise information.

5.2. LIMITATIONS

The limitations of the current study are:

1. The sample is limited to Leaving Certificate Students from secondary schools in Munster. However, the Provinces are similar in most respects, so accordingly the results may be generalised to the population. A more comprehensive study involving a larger population sample incorporating the rest of Ireland would have gained larger numbers and more accurate results.

2. Students were surveyed just after they have completed their CAO applications. . However, students' aspirations and their choices do not always correspond with each other. It is difficult to determine who will enter third level education prior to the CAO Points allocation. The present study evaluated students' the factors influencing the decision to attend college. As such, we have no knowledge of actual accession rates for the participants. It was not possible to do a follow up study to determine the *Final Choice* of students. Such a study would provide a more definitive insight into the college choice process of students.

5.3. RECOMMENDATIONS FOR FURTHER RESEARCH

Further research may seek to observe the implications of information search activity or inactivity on students' motivation and decision making capabilities during the college choice process, as well as their involvement with the educational process and ability to commit to their institution of choice as a co-producer of a service rather than a recipient of a product. Further research could explore the influence of the college visit on students' propensity to attend - that is - are open days used as a screening device for deciding which institution not to attend? The impact of information search on transition issues could be researched. This could take the form of a longitudinal study that would follow students' behaviours over time. It appears the more knowledgeable the student, the less likely that they will face transition problems when entering the third level institution of their choice. The fit between the student and the institution is liable to be enhanced if the student and the institution mutually apply selection processes designed to maximise the potential outcomes. Finally, further research could develop a *college choice model* for the Irish students' college choice and decision making process.

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TABLES 3-1 TO 3-10 CHAPTER THREE

TABLE 3-1: POPULATION THAT HAS ATTAINED TERTIARY EDUCATION (2002). (PERCENTAGE, BY AGE GROUP)

	Tertiary Type B					Tertiary Type A and Advanced Research Programme				
	25-34	35-44	45-54	55-64	25-64	25-34	35-44	45-54	55-64	25-64
Ireland	14	10	7	5	10	23	15	12	9	16
Denmark	6	6	5	4	5	23	24	25	18	23
France	17	12	9	6	12	19	11	10	9	12
Germany	8	11	11	10	10	13	15	14	11	13
Sweden	17	18	14	10	15	22	16	17	16	18
Switzerland	10	10	9	7	9	17	17	16	14	16
United Kingdom	8	9	8	7	8	23	18	18	13	19
United States	9	10	10	7	9	31	29	30	26	29
OECD mean	9	8	7	5	8	19	16	14	11	16
EU mean	10	9	7	6	8	17	14	13	10	14

(OECD, 2004)

TABLE 3-2: NEW ENTRANTS TO HIGHER EDUCATION IN 2003 BY COLLEGE TYPE1

College Type	Number	% distribution
University Sector	16,653	45.9%
Institutes of Technology	15,982	43.9%
Colleges of Education	1,349	3.7%
Other Colleges	2,362	6.5%

(HEA, 2005)

1. Includes all new entrants. Of these 32,610 were CAO entrants and 3,736 were non-CAO entrants i.e. direct college entrants. Of all new entrants 33,940 had a permanent address in the Republic of Ireland and 2,404 had a permanent address abroad (permanent address was unknown for two new entrants).

Table 3-3: TREND IN ADMISSION RATES TO HIGHER EDUCATION BY COUNTY 1998-2003[1]

County	Rate in 2003	Rate in 1998	Change in 1998-2003	% change in new entrants 1998-2003	% change in pop. cohort 1998-2003
LEITRIM	0.75	0.53	0.22	21%	15%
LONGFORD	0.67	0.49	0.18	4%	23%
WATERFORD	0.58	0.41	0.17	19%	16%
CLARE	0.66	0.50	0.16	11%	16%
LAOIS	0.52	0.39	0.14	20%	12%
KILKENNY	0.54	0.41	0.13	18%	11%
KERRY	0.66	0.53	0.13	7%	15%
KILDARE	0.54	0.41	0.13	22%	-7%
WEXFORD	0.57	0.44	0.13	7%	17%
CARLOW	0.57	0.44	0.13	14%	11%
TIPPERARY	0.61	0.49	0.12	5%	16%
ROSCOMMON	0.62	0.50	0.12	6%	15%
OFFALY	0.49	0.38	0.11	2%	22%
LOUTH	0.54	0.43	0.11	5%	17%
MEATH	0.56	0.45	0.10	11%	10%
CORK	0.58	0.49	0.09	3%	13%
MAYO	0.65	0.56	0.09	4%	10%
CAVAN	0.54	0.45	0.08	6%	10%
WICKLOW	0.49	0.41	0.08	3%	14%
DUBLIN	0.45	0.38	0.08	5%	13%
GALWAY	0.64	0.57	0.07	4%	-8%
SLIGO	0.62	0.56	0.06	1%	-9%
WESTMEATH	0.54	0.49	0.05	-1%	11%
MONAGHAN	0.46	0.41	0.05	-2%	13%
LIMERICK	0.55	0.50	0.04	-2%	10%
DONEGAL	0.39	0.35	0.04	-5%	14%

1. Caution is needed in interpreting county admission rates due to the small numbers involved.

(Fitzpatrick Associates, Survey of HEIs 2003/04 and CSO, Census of Population)

TABLE 3-4: DOMICILARY ORIGIN OF STUDENTS ENROLLED IN FULL-TIME COURSES IN THIRD LEVEL INSTITUTIONS IN 2002/2003

	Teacher Training		HEA	ITs	Other Aided by Dept of Ed	Aided by Other Depts	Non-Aided	Total
County	*Primary*	*Home Econ.*		*& Other*				
Connaught								
Galway	36	35	5,578	3,131	44	83	139	9,046
Leitrim	19	24	410	533	11	13	10	1,020
Mayo	57	40	2,249	2,341	52	47	63	4,849
Roscommon	13	26	1,053	1,097	19	36	24	2,268
Sligo	9	89	968	1,212	9	27	32	2,346
Leinster								
Carlow	9	5	649	733	13	16	74	1,499
Dublin	208	19	17,905	9,129	748	196	1,974	30,179
Kildare	56	4	2,688	1,804	130	60	222	4,964
Kilkenny	17	4	1,259	1,263	43	32	80	2,698
Laois	17	8	828	761	29	23	49	1,715
Longford	8	7	554	526	19	11	16	1,141
Louth	10	3	1,127	1,681	46	19	96	2,982
Meath	31	4	2,004	1,704	84	31	109	3,967
Offaly	22	5	878	968	26	26	42	1,967
Westmeath	13	4	1,141	1,208	40	19	47	2,472
Wexford	32	6	1,423	1,781	43	40	88	3,413
Wicklow	32	3	1,614	1,107	70	20	149	2,995
Munster								
Clare	11	4	2,372	1,325	6	28	63	3,809
Cork	35	23	9,954	5,546	30	169	343	16,100
Kerry	19	6	2,750	2,367	20	45	68	5,275
Limerick	9	13	3,975	2,114	10	54	180	6,355
Tipperary	17	12	2,599	2,055	23	59	108	4,873
Waterford	9	4	1,418	1,714	11	25	98	3,279
Ulster								
Antrim	0	0	237	10	3	0	9	259
Armagh	0	0	86	8	2	1	1	98
Cavan	19	13	749	978	29	16	33	1,837
Derry	0	0	146	11	5	1	6	169
Donegal	42	32	1,375	2,174	31	30	45	3,729
Down	0	0	258	23	9	0	16	306
Fermanagh	0	1	82	9	0	3	6	101
Monaghan	10	3	569	835	36	10	26	1,489
Tyrone	0	1	120	24	6	1	8	160
Ireland	0	0	321	0	0	0	0	321
TOTALS	760	398	69,339	50,172	1,647	1,141	4,224	127,681
of which N. Ireland	0	2	929	85	25	6	46	1,093

(HEA, 2004)

TABLE 3-5: NUMBER OF PERSONS RECEIVING FULL-TIME EDUCATION BY GENDER AND TYPE OF INSTITUTION ATTENDED (2002/2003)

TYPE OF INSTITUTION ATTENDED	MALE	FEMALE	TOTAL
THIRD LEVEL			
Aided by Dept. of Education			
***H.E.A. Institutions (Aided)	31,132	43,790	74,922
Teacher Training	79	1,079	1,158
Primary	64	696	760
Home Economic Colleges	15	383	398
Technological Colleges	26,876	24,631	51,507
Institutes of Technology	26,620	24,328	50,948
Killybegs & Tipperary Institute	256	303	559
Other Aided Institutions	710	986	1,696
Aided by Other Departments (Justice/Defence)	781	360	1,141
Non-Aided	2,613	2,762	6,899
Religious Institutions	344	586	930
Royal College of Surgeons in Ireland	760	764	1,524
Other	2,269	2,176	4,445
TOTAL - Third Level	31,059	29,818	137,323
of which aided by Department of Education & Science	27,665	26,696	129,283

(HEA, 2004)

TABLE 3-6: NUMBER OF STUDENTS ENROLLED IN THIRD LEVEL COURSES IN INSTITUTIONS 2002/2003

INSTITUTIONS	Full-time enrolments	Part-time enrolments
HIGHER EDUCATION AUTHORITY	74,922	14,036
NATIONAL UNIVERSITY OF IRELAND, CORK	12,492	1,273
NATIONAL UNIVERSITY OF IRELAND, DUBLIN	15,888	4,271
NATIONAL UNIVERSITY OF IRELAND, GALWAY	11,020	1,686
TRINITY COLLEGE, DUBLIN	11,628	2,798
NATIONAL UNIVERSITY OF IRELAND, MAYNOOTH	4,707	574
DUBLIN CITY UNIVERSITY	6,205	1,445
UNIVERSITY OF LIMERICK	8,142	1,576
ST. PATRICK'S TEACHER TRAINING COLLEGE, DRUMCONDRA	2,033	171
MARY IMMACULATE COLLEGE OF EDUCATION, LIMERICK	1,983	198
NATIONAL COLLEGE OF ART & DESIGN	824	44
INSTITUTES OF TECHNOLOGY/OTHER TECHNOLOGICAL COLLEGES	51,507	17,404
DUBLIN INSTITUTE OF TECHNOLOGY	10,240	5,634
ATHLONE INSTITUTE OF TECHNOLOGY	3,466	365
INSTITUTE OF TECHNOLOGY, CARLOW	2,476	534
CORK INSTITUTE OF TECHNOLOGY	6,068	3,187
DUNDALK INSTITUTE OF TECHNOLOGY	2,624	395
GALWAY - MAYO INSTITUTE OF TECHNOLOGY	4,563	1,090
LETTERKENNY INSTITUTE OF TECHNOLOGY	1,927	274
LIMERICK INSTITUTE OF TECHNOLOGY	3,602	904
INSTITUTE OF TECHNOLOGY, SLIGO	3,441	400
INSTITUTE OF TECHNOLOGY, TALLAGHT	2,297	1,371
INSTITUTE OF TECHNOLOGY, TRALEE	2,422	197
WATERFORD INSTITUTE OF TECHNOLOGY	5,711	2,430
DUN LAOGHAIRE INSTITUTE OF ART, DESIGN AND TECHNOLOGY	1,255	53
INSTITUTE OF TECHNOLOGY, BLANCHARDSTOWN	856	297
TIPPERARY INSTITUTE	354	224
HOTEL TRAINING/CATERING COLL, KILLYBEGS	205	49
OTHER COLLEGES	2,854	3,240
COLAISTE MHUIRE, MARINO, DUBLIN	417	0
C.O.I. COLLEGE OF EDUCATION, RATHMINES	90	77
FROEBEL COLLEGE, BLACKROCK, CO. DUBLIN	253	0
ST. ANGELA'S COLLEGE, LOUGH GILL, CO SLIGO	299	75
ST. CATHERINE'S COLLEGE, SION HILL	99	0
NATIONAL COLLEGE OF IRELAND	1,072	2,919
MATER DEI INSTITUTE, CLONLIFFE ROAD, DUBLIN	280	132
PONTIFICAL COLLEGE, MAYNOOTH, CO. KILDARE	344	37
OVERALL TOTAL	129,283	34,680

(HEA, 2004)

TABLE 3-7: EXPENDITURE ON EDUCATIONAL INSTITUTIONS AS A PERCENTAGE OF GDP FOR ALL LEVELS OF EDUCATION (2001).

	PRIMARY, SECONDARY AND POST-SECONDARY NON TERTIARY EDUCATION					TERTIARY EDUCATION		
	2001			1995		2001		1995
	PUBLIC	PRIVATE	TOTAL	TOTAL	PUBLIC	PRIVATE	TOTAL	TOTAL
IRELAND	2.9	0.1	3.1	3.9	1.1	0.2	1.3	1.3
DENMARK	4.2	0.1	4.3	4.0	1.8	N	1.8	1.6
FRANCE	4.0	0.2	4.2	4.4	1.0	0.1	1.1	1.1
GERMANY	2.9	0.7	3.6	3.7	1.0	0.1	1.0	1.1
SWEDEN	4.3	N	4.3	4.2	1.5	0.2	1.7	1.6
SWITZERLAND	3.9	0.6	4.5	M	1.3	M	M	M
UK	3.4	0.5	3.9	3.9	0.8	0.3	1.1	1.2
USA	3.8	0.3	4.1	3.9	0.9	1.8	2.7	2.7
OECD MEAN	3.5	0.3	3.8	3.7	1.0	0.3	1.4	1.3
EU MEAN	3.5	0.2	3.6	3.7	1.1	0.1	1.2	1.2

(OECD, 2004)

TABLE 3-8: WHERE FIRST-YEAR STUDENTS REGISTERED TO ATTEND COLLEGE IN 2003

Percentage	County of origin	Colleges at which they registered
89	Dublin	UCD, TCD, DCU, DIT, IT Tallaght, Blanchardstown IT
76	Cork	UCC, CIT
66	Galway	UCG, GMIT
60	Limerick	UL, LIT
54	Louth	Dundalk IT
51	Waterford	Waterford IT
44	Donegal	Letterkenny IT
39	Wexford	Waterford IT
38	Sligo	Sligo IT
36	Monaghan	Dundalk IT
34	Carlow	Carlow IT
31	Kilkenny	Waterford IT
30	Kerry	IT Tralee
27	Mayo	GMIT
19	Kildare	Maynooth

(Farmer's Journal, 2003)

TABLE 3-9: WHERE RURAL STUDENTS FROM A SAMPLE OF COUNTIES REGISTERED TO ATTEND COLLEGE IN 2003

Percentage	County of origin	Colleges at which they registered
3	Clare	UCD, TCD, DCU, DIT, IT Tallaght, IT Blanchardstown IT
4	Cork	UCD, TCD, DCU, DIT, IT Tallaght, IT Blanchardstown IT
6	Galway	UCD, TCD, DCU, DIT, IT Tallaght, IT Blanchardstown IT
7	Limerick	UCD, TCD, DCU, DIT, IT Tallaght, IT Blanchardstown IT
8	Louth	UCD, TCD, DCU, DIT, IT Tallaght, IT Blanchardstown IT
10	Waterford	UCD, TCD, DCU, DIT, IT Tallaght, IT Blanchardstown IT
Percentage	County of origin	Colleges at which they registered
9	Cork	UL, Limerick IT
9	Galway	UL, Limerick IT
8	Limerick	UCG, GMIT
14	Limerick	UCC, Cork IT

(Farmer's Journal, 2003)

TABLE 3-10: THE SUNDAY TIMES IRISH UNIVERSITY LEAGUE TABLE 2004

Ranking (2003 in brackets)		Leaving Cert points (250)	Research (100)	Employ-ment (100)	Firsts/2:1s awarded (100)	Student/ staff ratio (100)	Completion rate (100)	Total (650)
1 (1)	Trinity College Dublin	202	64	98	72	49	84	569
2 (4)	Dublin City University	176	100	97	58	45	80	556
3 (3)	University College Cork	185	68	97	55	46	82	533
4 (2)	University College Dublin	187	41	99	58	50	84	519
5 (5)	National University of Ireland, Galway	183	47	99	43	45	87	504
6 (8)	University of Limerick	178	40	97	46	46	89	496
7= (6)	Dublin Institute of Technology	166	9	96	55	81	71	478
7= (10)	National University of Ireland, Maynooth	171	45	99	39	49	75	478
9 (7)	Cork Institute of Technology	171	5	98	46	57	80	457
10= (n/a)	Institute of Technology Blanchardstown	140	5	97	60	65	81	448
10= (9)	Dun Laoghaire Institute of A, D & T	159	7	85	49	78	70	448
12 (11)	Limerick Institute of Technology	157	2	97	38	59	92	445
13 (14=)	Institute of Technology Tallaght	136	7	98	58	66	75	440
14 (16=)	Galway-Mayo Institute of Technology	144	5	98	56	65	70	438
15 (13)	Waterford Institute of Technology	153	10	98	36	48	92	437
16 (14=)	Institute of Technology Tralee	144	12	94	38	70	76	434
17 (18)	Athlone Institute of Technology	141	11	100	35	55	86	428
18 (19)	Dundalk Institute of Technology	136	20	96	38	67	66	423
19 (12)	Institute of Technology Sligo	139	12	97	49	59	65	421
20 (16=)	Institute of Technology Carlow	137	15	98	42	56	71	419
21 (20)	Letterkenny Institute of Technology	146	3	100	36	66	57	408

THE LEAGUE TABLE: Universities were ranked according to marks scored in six key performance areas including:

Average points for entry: The median Leaving Certificate points obtained by degree course entrants, weighted by the latest data on the number of students on each course. A maximum score of 600pts is assumed and the percentage of the maximum attained is given a 2.5 times weighting in the league table. Source: CAO entry data 2003. Blanchardstown score is based on entry points to business studies certificate course.

Research: A measure of research efficiency which compares competitive research funding won in 2003 with the number full-time equivalent academic staff. Dublin City University had the best ratio, which we scored 100 in the table. All other scores expressed as a percentage of the DCU result. Source: individual institutions provided the research income figure for 2003.

Employment: Percentage of graduates known to be seeking employment six months after graduation. This is subtracted from 100 to produce the league table score. Source: HEA 2000 data.

Firsts/2:1s: Percentage of highest quality degree. Source: individual universities and institutes of technology that award own degrees; all others Higher Education and Training Awards Council (HETAC), 2003 data; WIT, 2002.

Student-staff ratio: Full-time and part-time students (weighted) divided by full-time equivalent teaching staff. A ratio of 10:1 was used as a benchmark for excellence, worthy of 100pts in the league table. Source: universities, HEA 2003 data; ITs and Department of Education and Science, 2003 data.

Completion rates: Percentage of 1998 entrants who completed courses for which they enrolled by 2003. Source: individual institutions. IT, Tallaght; Letterkenny IT; CIT; NUI, Galway and Trinity College unable to provide exact figures so estimates based on previous data used.

OTHER INDICATORS IN THE PROFILES

Points for entry: The figure out of brackets is the median points score for degree course entry, 2003 (see above). The two figures in brackets show the lowest and highest minimum entry scores across all courses, including those at sub-degree level. These may be lower than the median figures because many students will enter with points much higher than the cut-off. Courses where additional points are awarded for interview/portfolio are excluded. Source: CAO 2004, round 1 data.

Distinction/merit 1: Percentage of highest quality undergraduate certificates and national diplomas. Source: HETAC 2003.

Undergraduates/postgraduates: Full-time undergraduate and postgraduate enrolments. Separate figure in brackets denotes part-time enrolments at each level in universities; combined figure only for part-timers in ITs.

Teaching staff: Full-time equivalent number of staff engaged in teaching.

Hardship fund: Money made available to students to allow them to continue their studies. Source: individual institutions.

Mature/overseas students: Those over 23; those not from RoI. Source: HEA 2003 data, universities only. Non-standard entry Individual institutions' 2004 intake.

Sports facilities: Assessment by The Sunday Times in consultation with student unions: from one star (poor) to 3 stars (excellent).

Accommodation: Student unions and colleges.

(The Sunday Times, 2004)

DO NOT FEEL OBLIGATED TO ANSWER ANY OR ALL OF THE QUESTIONS IF YOU ARE UNCOMFORTABLE OR UNABLE TO DO SO.

THANK YOU FOR YOUR TIME AND EFFORT.

SECTION A: BUYER BEHAVIOUR

THE BEGIN WITH, WE WOULD LIKE TO KNOW ABOUT THE WAY YOU PURCHASE PRODUCTS.

PLEASE CIRCLE <u>ONLY ONE</u> NUMBER FOR EACH STATEMENT USING THE FOLLOWING SCALE:

strongly disagree 1	**disagree 2**	**neither somewhat disagree 3**	**agree nor disagree 4**	**somewhat agree 5**	**agree 6**	**strongly agree 7**	**NO OPINION**

1.	If I want to be like another person, I will try to buy the same products they buy	**1**	**2**	**3**	**4**	**5**	**6**	**7**	☐
2.	I often consult other people to help choose the best alternative available from a product class	1	2	3	4	5	6	7	☐
3.	It is important that others like the products that I buy	**1**	**2**	**3**	**4**	**5**	**6**	**7**	☐
4.	I rarely buy the latest fashion styles until I am sure that my friends will approve of them	1	2	3	4	5	6	7	☐
5.	I often identify with other people by buying the same products they buy	**1**	**2**	**3**	**4**	**5**	**6**	**7**	☐
6.	If I have little experience with a product, I will ask my friends about the product	1	2	3	4	5	6	7	☐
7.	When I buy a product, I generally buy products that I think others will approve of	**1**	**2**	**3**	**4**	**5**	**6**	**7**	☐
8.	I like to know what products make good impressions on other people	1	2	3	4	5	6	7	☐
9.	I frequently gather information from friends or family about a product before I buy	**1**	**2**	**3**	**4**	**5**	**6**	**7**	☐
10.	I get a feeling of belonging by buying products and brands that others buy	1	2	3	4	5	6	7	☐
11.	If others can see me using a product, I will buy the product they expect me to buy	**1**	**2**	**3**	**4**	**5**	**6**	**7**	☐
12.	To make sure I buy the right product, I often observe what others are buying and using	**1**	**2**	**3**	**4**	**5**	**6**	**7**	☐

SECTION B: THIRD LEVEL COLLEGES

B1 PLEASE INDICATE WHICH COLLEGES YOU HAVE GATHERED INFORMATION ABOUT *<u>AND</u>* WHICH COLLEGES YOU APPLIED TO:

		Gathered Information About ⇩	**Applied to** ⇩
INSTITUTES OF TECHNOLOGY			
1.	Athlone	☐	☐
2.	Blanchardstown	☐	☐
3.	Carlow	☐	☐
4.	Cork	☐	☐
5.	Dublin	☐	☐
6.	Dun Laoghaire	☐	☐
7.	Dundalk	☐	☐
8.	Galway-Mayo	☐	☐
9.	Letterkenny	☐	☐
10.	Limerick	☐	☐
11.	Sligo	☐	☐
12.	Tallaght	☐	☐
13.	Tralee	☐	☐
14.	Waterford	☐	☐
UNIVERSITIES			
15.	Cork (UCC)	☐	☐
16.	Dublin (UCD)	☐	☐
17.	Dublin City University (DCU)	☐	☐
18.	Galway (UCG)	☐	☐
19.	Maynooth	☐	☐
20.	University of Dublin (TCD)	☐	☐
21.	University of Limerick (UL)	☐	☐

		Gathered Information About	Applied to
COLLEGES OF EDUCATION		⇩	⇩
22.	Church of Ireland College of Ed	☐	☐
23.	Coláiste Mhuire, Marino	☐	☐
24.	Froebel College of Education	☐	☐
25.	Mary Immaculate College	☐	☐
26.	Mater Dei Institute of Education	☐	☐
27.	St. Angela's College of Ed	☐	☐
28.	St. Catherine's College of Ed	☐	☐
29.	St. Patrick's College of Ed	☐	☐

B2 (a) HOW LONG BEFORE YOU MADE YOUR FINAL DECISION DID YOU DECIDE YOU WANTED TO GO TO COLLEGE?

(b) HOW MUCH TIME DID YOU SPEND EVALUATING THE COLLEGES BEFORE MAKING YOUR FINAL DECISION?

		(a)	(b)
1.	A few days (0–7 days)	☐	☐
2.	A few weeks (8–24 days)	☐	☐
3.	About a month (25–40 days)	☐	☐
4.	1.5–3 months (41–90 days)	☐	☐
5.	3+ to 6 months	☐	☐
6.	6+ to 12 months	☐	☐
7.	1+ to 2 years	☐	☐
8.	More than 2 years	☐	☐

B3 HOW MANY COLLEGE OPEN DAYS DID YOU ATTEND?

_____

B4 IF YOU APPLIED TO I.T. TRALEE, WHAT COURSE(S) DID YOU CHOOSE?

_____

B5 DID YOU CONSULT THE I.T. TRALEE PROSPECTUS TO GET INFORMATION ABOUT THE COLLEGE?

☐ Yes ☐ No **IF YOU ANSWERED *NO*, PLEASE GO TO QUESTION *B7***

B6 IF YOU DID CONSULT THE I.T. TRALEE PROSPECTUS, PLEASE RATE HOW GOOD YOU FOUND THE FOLLOWING INFORMATION CONTAINED IN IT.

PLEASE CIRCLE ONLY ONE NUMBER FOR EACH USING THE FOLLOWING SCALE:

	extremely bad 1	bad 2	fairly bad 3	neither good nor bad 4	fairly good 5	good 6	extremely good 7	NO OPINION
1. Application procedures and guidelines	1	2	3	4	5	6	7	☐
2. Student Support Services	1	2	3	4	5	6	7	☐
3. Scholarships	1	2	3	4	5	6	7	☐
4. Courses	1	2	3	4	5	6	7	☐
5. Course Structure	1	2	3	4	5	6	7	☐
6. Subjects within Courses	1	2	3	4	5	6	7	☐
7. Assessment Procedures	1	2	3	4	5	6	7	☐
8. Academic Facilities	1	2	3	4	5	6	7	☐
9. Student Activities	1	2	3	4	5	6	7	☐
10. Adult and Continuing Education	1	2	3	4	5	6	7	☐
11. Postgraduate Opportunities	1	2	3	4	5	6	7	☐
12. College Staff	1	2	3	4	5	6	7	☐
13. Possibility to study abroad	1	2	3	4	5	6	7	☐

B7 IF YOU GATHERED INFORMATION FROM ANY OF THE FOLLOWING SOURCES, HOW USEFUL WAS IT?

PLEASE CIRCLE ONLY ONE NUMBER FOR EACH USING THE FOLLOWING SCALE:

	extremely useless 1	useless 2	moderately useless 3	neither useful nor useless 4	moderately useful 5	useful 6	extremely useful 7	NO OPINION
1. Newspaper/magazine article	1	2	3	4	5	6	7	☐
2. Guide to third level colleges	1	2	3	4	5	6	7	☐
3. Advertisement in newspaper or magazine	1	2	3	4	5	6	7	☐
4. College Website	1	2	3	4	5	6	7	☐
5. Internet	1	2	3	4	5	6	7	☐
6. Advertisement in your school	1	2	3	4	5	6	7	☐
7. Third level education seminar	1	2	3	4	5	6	7	☐
8. Open day at the college	1	2	3	4	5	6	7	☐
9. Visits to your school by college representatives	1	2	3	4	5	6	7	☐
10. Career Guidance Counselor	1	2	3	4	5	6	7	☐
11. College Prospectus	1	2	3	4	5	6	7	☐

SECTION C: CHOOSING A COLLEGE

C1 PLEASE INDICATE HOW IMPORTANT THE FOLLOWING FACTORS WERE ON YOUR DECISION TO CHOOSE A PARTICULAR COLLEGE?

PLEASE CIRCLE ONLY ONE NUMBER FOR EACH USING THE FOLLOWING SCALE:

very unimportant 1	unimportant 2	somewhat unimportant 3	neither important nor unimportant 4	somewhat important 5	important 6	very important 7	NO OPINION

1.	Costs associated with attending the college (rent, food, books etc.)	1	2	3	4	5	6	7	☐
2.	Image or reputation of the college	1	2	3	4	5	6	7	☐
3.	Size of the campus and the college	1	2	3	4	5	6	7	☐
4.	Location of the college relative to my home	1	2	3	4	5	6	7	☐
5.	Courses offered at the college	1	2	3	4	5	6	7	☐
6.	Educational facilities (e.g. library, computers labs)	1	2	3	4	5	6	7	☐
7.	The type of qualification that can be attained at the college	1	2	3	4	5	6	7	☐
8.	Opportunities to meet other people and socialise	1	2	3	4	5	6	7	☐
9.	Extra curricular activities (e.g. sports, clubs and societies)	1	2	3	4	5	6	7	☐
10.	Job placement opportunities and the ability to get a good job on graduation	1	2	3	4	5	6	7	☐
11.	Being able to attain the necessary Leaving Certificate results to get a place on the course	1	2	3	4	5	6	7	☐
12.	Non-academic facilities (e.g. housing, dining, parking etc.)	1	2	3	4	5	6	7	☐
13.	Availability of financial aid, grants and student welfare programs								
14.	Relevance of course to your chosen career	1	2	3	4	5	6	7	☐
15.	I am interested in the course	1	2	3	4	5	6	7	☐
16.	You are familiar with the college	1	2	3	4	5	6	7	☐
17.	Easy access to shopping (supermarkets, banks etc)	1	2	3	4	5	6	7	☐
		1	2	3	4	5	6	7	☐

C2 HOW IMPORTANT WAS THE ADVICE (IF ANY), YOU RECEIVED FROM THE FOLLOWING PEOPLE IN MAKING YOUR DECISION TO GO TO COLLEGE:

PLEASE CIRCLE ONLY ONE NUMBER FOR EACH USING THE FOLLOWING SCALE:

very unimportant 1	unimportant 2	somewhat unimportant 3	neither important nor unimportant 4	somewhat important 5	important 6	very important 7	NO OPINION

1.	Friends / peers									
2.	Students already enrolled at the college	1	2	3	4	5	6	7	☐
3.	People who previously attended the college	1	2	3	4	5	6	7	☐
4.	People who previously attended another college	1	2	3	4	5	6	7	☐
5.	Student(s) enrolled at another college	1	2	3	4	5	6	7	☐
6.	Parents(s), brother(s) and/or sister(s)	1	2	3	4	5	6	7	☐
7.	Other relative(s) e.g., grandparents, uncles, aunts	1	2	3	4	5	6	7	☐
8.	Guidance counselor and/or teacher(s) from school	1	2	3	4	5	6	7	☐
9.	Members of a professional body	1	2	3	4	5	6	7	☐
10.	Recruiter or representative from the College	1	2	3	4	5	6	7	☐
		1	2	3	4	5	6	7	☐

C3 PLEASE INDICATE YOUR LEVEL OF AGREEMENT WITH THE FOLLOWING STATEMENTS:

PLEASE CIRCLE ONLY ONE NUMBER FOR EACH STATEMENT USING THE FOLLOWING SCALE:

strongly disagree 1	disagree 2	somewhat disagree 3	neither agree nor disagree 4	agree 5	somewhat agree 6	strongly agree 7	NO OPINION

1.	I am really very interested in college(s)	1	2	3	4	5	6	7	☐
2.	I do not care at all which college i attend as long as I get a qualification	1	2	3	4	5	6	7	☐
3.	Which college i will attend is very important to me	1	2	3	4	5	6	7	☐
4.	Choosing a college is a difficult decision	1	2	3	4	5	6	7	☐
5.	When choosing a college, I could not be sure if it was the right choice or not	1	2	3	4	5	6	7	☐
6.	When you choose a college you could never be quite certain about your choice	1	2	3	4	5	6	7	☐
7.	It does matter if you choose the wrong college	1	2	3	4	5	6	7	☐
8.	I worried a lot about choosing a college	1	2	3	4	5	6	7	☐
9.	I would be angry with myself if I chose the wrong college	1	2	3	4	5	6	7	☐
10.	I felt I knew a lot about colleges	1	2	3	4	5	6	7	☐
11.	I knew what information I needed to make my decision	1	2	3	4	5	6	7	☐
12.	I looked at one or two important factors in making my decision	1	2	3	4	5	6	7	☐
13.	I am very knowledgeable about colleges relative to others	1	2	3	4	5	6	7	☐
14.	I have a clear idea of the important characteristics to look for when choosing a college	1	2	3	4	5	6	7	☐
15.	The college I will attend shows what type of person I am	1	2	3	4	5	6	7	☐
16.	Choosing the correct college could help you attain the life you want	1	2	3	4	5	6	7	☐
17.	When I was looking for a college, I searched for a lot of information	1	2	3	4	5	6	7	☐
18.	When I was selecting a college, I used many information sources	1	2	3	4	5	6	7	☐
19.	When I was searching for a college, I did not look for any information	1	2	3	4	5	6	7	☐
20.	I made detailed comparisons of the colleges I applied to	1	2	3	4	5	6	7	☐
21.	It is worthwhile researching colleges before making a decision	1	2	3	4	5	6	7	☐
22.	It is beneficial searching for information about colleges	1	2	3	4	5	6	7	☐
23.	There are no benefits in obtaining college related information	1	2	3	4	5	6	7	☐
24.	I felt it took a lot of effort to search for information about colleges	1	2	3	4	5	6	7	☐
25.	I felt it took a lot of time to search for information about colleges	1	2	3	4	5	6	7	☐
26.	I made my final choice of colleges too quickly	1	2	3	4	5	6	7	☐
27.	I had little time to make my decision about which colleges to apply to	1	2	3	4	5	6	7	☐
28.	To me, it will be a pleasure to attend college	1	2	3	4	5	6	7	☐
29.	I will enjoy going to college	1	2	3	4	5	6	7	☐

C4 PLEASE INDICATE YOUR LEVEL OF AGREEMENT WITH THE FOLLOWING STATEMENTS:

PLEASE CIRCLE ONLY ONE NUMBER FOR EACH STATEMENT USING THE FOLLOWING SCALE:

strongly disagree 1	disagree 2	somewhat disagree 3	neither agree nor disagree 4	agree 5	somewhat agree 6	strongly agree 7	NO OPINION

1.	I selected the college that came out best when I balanced the good characteristics against the bad characteristics	1	2	3	4	5	6	7	☐
2.	I picked the college that had no bad features	1	2	3	4	5	6	7	☐
3.	I selected the college that excelled in at least one attribute	1	2	3	4	5	6	7	☐
4.	I looked at the feature that was most important to me and chose the college that ranked highest on that attribute	1	2	3	4	5	6	7	☐
5.	I chose the college as everything about it was outstanding	1	2	3	4	5	6	7	☐
6.	I chose the college I could get the points to get into	1	2	3	4	5	6	7	☐

SECTION D – PERSONAL INFORMATION

D1 SEX ☐ Male ☐ Female **D2** AGE _____

D3 WHAT IS THE OCCUPATION (EVEN IF CURRENTLY UNEMPLOYED) OF YOUR FATHER AND/OR MOTHER?

FATHER _____ MOTHER _____

D4 WHAT IS THE HIGHEST LEVEL OF EDUCATION YOUR PARENTS HAVE COMPLETED (PLEASE REFER TO THE LIST BELOW)?

		FATHER	**MOTHER**
1.	PRIMARY SCHOOL	☐	☐
2.	SECONDARY SCHOOL	☐	☐
3.	TRADE/CERT/DIPLOMA	☐	☐
4.	DEGREE	☐	☐
5.	MASTERSDEGREE	☐	☐
6.	DOCTORATE	☐	☐
7.	DON'T KNOW	☐	☐

THANK YOU VERY MUCH FOR COMPLETING THIS QUESTIONNAIRE

THE NATIONAL FRAMEWORK OF QUALIFICATIONS
(HETAC, 2004)

CHANGES IN THE QUALIFICATIONS SYSTEM

The launch of the National Framework of Qualifications, in October 2003, set in motion some major changes in the qualifications system in Ireland. In line with the Framework blueprint, the Higher Education and Training Awards Council (HETAC) has undertaken a rapid transformation of its award system.

From the Autumn of 2004 the programmes leading to new higher education awards under HETAC will be Higher Certificate, Ordinary Bachelors Degree and Honours Bachelors Degree.

The following table illustrates the changes in the system that will affect entrants to higher education. These changes will be reflected in the 2004 CAO arrangements for 2005 entry.

CHANGES IN THE SYSTEM OF AWARDS

Framework Level	**Existing Awards (to 2004)**	**New awards (from 2005)**
Level 6	National Certificate	Higher Certificate
Level 7	National Diploma	Ordinary Bachelor Degree
Level 8	Bachelor Degree (3 & 4 year honours)	Honours Bachelor Degree

The table illustrates the changes in the system taking place in 2004 that will impact on 2005 entrants to higher education

As the new awards are introduced, awards previously in use, such as National Certificate and National Diploma, will no longer be available. These ‘existing’ awards (listed in the

middle column in the table) will not be conferred after 2004, except in the case of repeat students. **They will, however, continue to be recognised as valid awards in their own right, placed on the Framework at the levels indicated above; however, existing awards will not be exchanged for new awards now or in the future.**

These changes are in line with developments internationally. In particular, the new higher education awards are consistent with the 'Bologna Declaration', and with the emerging concept of an overarching framework of qualifications in a European 'higher education area'.

(SOURCE: HETAC, 2004)