A marketing perspective on choice factors W:bg]XYfYX`VmGci h\`5Zf]WUb` fgH mYUf`ghi XYbhg` in selecting a higher education institution

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A B S T R A C T

The unstable and turbulent environment in which higher education institutions all over the world currently have to operate poses many management and marketing challenges to such institutions. As non-dfc h`cf[ Ub]gUh]cbgž h\Y`UV`]hm`cZ`\][\Yf`YXi WUh]cb`]bgh]hih]cbg`hc` survive and grow would be enhanced by up-to-date knowledge and information regarding the higher education environment, and a cfY`gdYW]W`WU`mVm`\Uj]b[`a Uf`Yh]b[`UbX`Wca a i b]WUh]cb`ghfUhY[]Yg` h\Uh`a][\h`b i YbWY`ghi XYbhg`a U_]b[`XYW]g]cbg`cb`k]W`i b]jYfg]hm to enrol at. The main goal of this study was to investigate the relevant importance of the choice factors that prospective students considered, as well as the sources of information used in the XYW]g]cb! a U_]b[ dfcWYgg`k \Yb`h\Ym`XYW]XYX`hc`Ybfcr``Ug` fgH mYUf` Economic and Management Sciences students at a higher education institution in South Africa. A non-probability convenience sample of 1 500 students from six higher education institutions participated ]b` h\Y`ghi Xm`` H\Y` bX]b[g`cZ`h\Y`ghi Xm`]bX]WUhY` h\Uh`ei U`]hm`cZ` teaching and employment prospects ranked the highest as choice ZUWhcfg"` H\Y` k cfX! cZ! a ci h\` ]b i YbWY` cZ` dUfYbhgž g]V`]b[g` UbX` Zf]YbXg`k YfY`h\Y`YUgh]`]b i Ybh]U`ZUWhcfg"`7Ua di g`j]g]hg`UbX`cdYb! days are the most valuable sources of information for prospective students. Advertisements on television or in the printed media are not considered to be particularly valuable sources of information.

Key words: choice factors, consumer behaviour, higher education, higher education institutions, marketing, marketing strategies, services, students

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Introduction

Worldwide, higher education is undergoing considerable changes, including the formation of partnerships (Newby 2003; Valiulis 2003), increased focus on the global market (Mok 2003; Kwong 2000) and increased competition (Ehrenberg, Zhang & Levin 2006). Higher education institutions also face the challenges of financial pressures (Baird 2006; Dennis 2005; Lee & Clery 2004; Espinoza, Bradshaw & Hausman 2002).

The post-apartheid era since 1994 has been characterised by major restructuring of the higher education landscape in South Africa. Higher education institutions are faced with globalisation, broadening access to higher education, changes in language policies, changes in government funding, increased emphasis on technology, transformation policies, mergers, HIV/AIDS, changing student profiles and increased competition (Fataar 2003; Jansen 2003; Van Niekerk 2004; Akoojee & Nkomo 2007). Globalisation has opened the floodgates of competition both nationally and internationally. South African higher education institutions are thus threatened not only by competition within the national boundaries, but also face threats from virtual universities and virtual learning (De Vries 2007: 2). The challenges presented by the restructuring of higher education in South Africa through the National Plan for Higher Education and the implementation of the National Qualifications Framework require efficient management and solid marketing practices. The competitive environment is intense, and higher education institutions (HEIs) will have to market themselves effectively. These institutions face competition not only from other public education providers, but also from private education service providers, which have noticeably increased in numbers over the last few years.

In a restricted financial environment, HEIs will have to assess and reassess marketing strategies aimed at attracting quality first-year students. According to Goff, Patino and Jackson (2004: 795), increased advertisements, promotions and other marketing elements are evident in the higher education sector. Furthermore, in order to effectively communicate with potential students, it is important that HEIs understand how to reach them as well as what to say to them. Considering all the challenges that HEIs face, it is evident that institutions will have to become more market-oriented. A proper assessment of the choice factors that students consider in selecting an HEI, as well as the sources of information consulted, will enable institutions to allocate funds, time and resources more efficiently and effectively. One of the key issues in the successful development of a marketing strategy is to determine which factors students consider when they make a decision on which institution to attend.

A number of studies have recently been conducted in the field of marketing for non-profit organisations (including universities). Several authors have investigated the importance of institutional image in attracting students to select an HEI (Palacio, Meneses & Perez 2002; Arpan, Raney & Zivnuska 2003; Pabich 2003) as well as the choice factors that students consider when enrolling at a university (Espinoza et al. 2002; Hoyt & Brown 2003; Gray & Daugherty 2004; Punnarach 2004). Local studies have focused on aspects such as the image of universities (De Wet 1983; Kruger 1994), market positioning (Van Biljon 1992), marketing strategies (Diederichs 1987), corporate image (Roux 1994), corporate reputation (Coetzee & Liebenberg 2004) and marketing communication strategies (Jones 2002).

A higher education perspective on the marketing of services

Nowadays, it is generally recognised that marketing is central to all kinds of profit-driven as well as non-profit organisations or firms. A marketing orientation (also referred to as the 'marketing concept') is the foundation of contemporary marketing philosophy. It is based on an understanding that the social and economic justification of a firm or institution's existence is to supply quality products and render services that will satisfy customers' needs (Lamb, Hair, McDaniel, Boshoff & Terblanche 2004).

The unique character of services – for example, their *intangible* nature (since they cannot be tasted or touched); the fact that they cannot be stored (*perishability*); and the fact that the production and consumption thereof often take place simultaneously (*inseparability*) – makes service marketing more challenging than marketing a physical product (Lamb et al. 2004). When a service is marketed, the traditional four Ps or elements of the marketing mix for products (product, place, price and promotion) need to be expanded to include three more Ps, namely people, processes and physical evidence. Within the context of this study, the additional marketing mix elements can be applied as follows: *people* could, for example, refer to the lecturers that interact with students; *processes* could include all the administrative activities and procedures taking place behind the scenes when students are registered; and *physical evidence* could include aspects such as parking areas and the neatness of lecture halls or venues.

The marketing of services for non-profit organisations covers a wide spectrum of organisations or sectors such as health, social marketing (marketing of ideas), fundraising and education. Previous research points out that there are numerous pressures and changes in the higher education landscape including competition, a decrease in government funding, as well as mergers that impact on a university's

endeavours to attract quality students (Whyte 2001; Espinoza et al. 2002; Haigh 2002; Mok 2003; Mouwen 2002; Rindfleish 2003). It is evident from previous research that HEIs should respond to such challenges by understanding and influencing the HEI choice process among prospective students in order to remain competitive. The efforts will have to include more targeted advertisements and promotional material as well as more generally positioning the institution in the minds of prospective students and their parents with respect to competitors. According to Abaya (2004: 3), marketing an HEI is paradoxically simple and complex at the same time. The issue is partly that business success is measured fundamentally in terms of revenues and profits. In contrast, institutions of higher learning exist primarily to provide students (customers) one-of-a-kind education and campus experiences. Ballinger (2005: 37) suggests that the selection process should also be an educational experience for students.

HEIs not only compete for students and staff, but also for funding. This implies that universities and other institutions of higher education must have a marketing and communication strategy in place that will not only convey and enhance the corporate brand or image of the university, but also inform prospective students and other role-players of the unique characteristics of the institution that will make it the desired university at which to enrol. As already mentioned, it was these unique characteristics or choice factors considered by students wishing to enrol at a university that were the impetus for this study. According to Kotler and Armstrong (2001: 18), an institution markets itself by designing the organisation's offerings in terms of the needs and desires of the target market as well as by using effective pricing, communication and distribution to inform, motivate and service the market. Early research by Chapman (1981) and other authors (Seymour 2000; Bradshaw, Espinoza & Hausman 2001; Arpan et al. 2003) determined that HEIs make use of various means to market their services, including word-of-mouth, web pages, open days, brochures, alumni networks and advertisements in newspapers, radio and television. Findings from a study by Hoyt and Brown (2003: 4) identified web sites as the most important source of information for students, while research findings by Seymour (2000: 11) highlighted campus visits as the most influential source of information for prospective students. Findings from local studies by Jones (2002) identified word-of-mouth from friends as the most important source of information, while the findings of the study by Coetzee and Liebenberg (2004) recognised open days and web sites as the most important sources of information considered by students.

Literature and previous studies not only report on the choice factors that students consider, but also suggest that some choice factors may be more important than

others (Sevier 1993; Martin 1994; Geraghty 1997; Davis 1998; Freeman 1999; Bers & Galowich 2002; Price, Matzdorf, Smith & Aghai 2003; Mills 2004; Shin & Milton 2006).

In markets where current and prospective students are regarded as the target market and 'final consumer' of the service offering, several important actions can be taken by HEIs (Melewar & Akel 2005: 41; Abaya 2004). Firstly, HEIs have to implement strategies to maintain and enhance their competitiveness. Secondly, effective communication strategies need to be employed to convey the unique selling propositions (USPs) of the institution. Finally, these USPs (which can be created by focusing on choice factors such as quality of teaching, international links or the flexible study mode of the university) must be communicated to all relevant stakeholders.

Given the overall decline in customer satisfaction with services, Zeithaml and Bitner (2003: 2) are of the opinion that "the potential and opportunities for companies who can excel in services marketing and delivery have never been greater". It is believed that the findings and recommendations of this study could provide valuable guidelines to universities for compiling and managing effective marketing and communication strategies, not only to attract quality students, but also to build long-term relationships with stakeholders and other relevant role-players.

Consumer behaviour in a service environment

The consumer decision-making process is an important area of study with respect to consumer behaviour. The study of the consumer decision-making process involves analysing how people choose between two or more alternative acquisitions, the behaviour that takes place before and after the choice and the buying patterns that emerge as a result of this process.

Espinoza et al. (2002: 20) state that in response to the pressures of the changing environment of HEIs, there have been expanded efforts by institutions to understand and influence the decision-making process among prospective students. Most authors in the field of consumer behaviour agree that the consumer decision-making process comprises five stages: problem recognition, information search, alternative evaluation and selection, outlet selection and purchase, and post-purchase processes (Mowen 1995; Schiffman & Kunuk 2004; Hawkins, Mothersbaugh & Best 2007).

In the context of this study, the first stage of decision-making for learners in Grades 11 and 12 probably begins when they have discussions with their parents regarding the possibility of further education and training at an HEI. In this *problem*

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identified the media, institutional accessibility, academic programmes and non-academic programmes as the main choice factors. Bajsh and Hoyt (2001) and Bradshaw et al. (2001) identified five different main factors considered by students in selecting a college, namely: quality and responsiveness of personnel (helpfulness and accessibility); research activities; social opportunities (athletic programmes and social life); economic considerations (location of campus and work opportunities); and size of the institution.

Espinoza et al. (2002: 23) identified campus safety and flexibility in course offering times as additional factors to those identified in previous studies (Bajsh & Hoyt 2001; Bradshaw et al. 2001). Canadian Universities (2000) make use of six criteria to assist students via the Internet in selecting a Canadian university: programme reputation, social reputation, friends, entry requirements, educational programmes and extra-curricular activities. Haviland (2005: 62) expresses the opinion that the 'feel' of an HEI can also influence the attitude of prospective students and thus influence their selection process. Bonnema and Van der Waldt (2008: 317) identify five sub-groups of choice factors, namely employment prospects, course content aspects, student experiences, sporting opportunities, financial aspects and the influence of significant others.

According to Hoyt and Brown (2003: 3), institutions may develop their own in-house survey or use a standardised instrument such as the Admitted Student Questionnaire (ASQ) (College Board 2005) or Cooperative Institutional Research Programme Freshman Survey (CIRP) (Randall 2001) to gain insight into the student market. Although the literature provides an understanding of the marketing framework of the choice factors that institutions usually consider, only a limited number of choice factors are usually investigated when surveying students. Hoyt and Brown (2003) evaluated 27 previous studies with fewer than ten choice factors and contrasted them against studies with more than 20 choice factors (Absher & Crawford 1996; Jonas & Popovics 1990). The ASQ details 13 factors on college choice characteristics and offers the possibility of entering other individualised factors. The findings of these studies indicate the following as the most frequently listed choice factors: academic reputation, location, quality of instruction, availability of programmes, quality of the faculty, cost, reputable programme, financial aid and job outcomes. The next 12 most important factors found in these studies were: variety of courses offered, size of the institution, surrounding community, availability of graduate programmes, student employment opportunities, quality of social life, class size, admission to graduate school, extra-curricular programmes, friendly/personal service, affiliation (with another reputable institution), admission requirements and attractiveness of campus facilities.

The Admitted Student Questionnaire (ASQ) and Cooperative Institutional Research Programme Freshman Survey (CIRP) instruments were used as the basis for identifying the choice factors included in this study. To reflect South African circumstances, two additional variables or choice factors were added to the list, namely *language policy* and *campus safety and security.*

Aim of the research

Despite the international and local studies discussed, little is known about the choice factors considered by South African students when they select an HEI. The changing environment of higher education in South Africa and the lack of recent, scientific studies in this field served as the impetus for this study. A study on the relative importance of these choice factors when students must make decisions on which university to enrol at will aid researchers and university marketers to better understand the student market (Hoyt and Brown 2003). The literature in this field not only emphasises the need for HEIs to identify the choice factors, but also to gain an understanding of the various information sources used by students when buying decisions of this nature must be made. The objectives of this study were threefold: (1) to investigate the relative importance of different choice factors, (2) to determine whether students from various higher education institutions differ regarding the importance they attach to choice factors when selecting an HEI and (3) to determine the usefulness of the sources of information considered by students. To address the second objective, the following hypothesis was formulated:

H_1: Students from different academic institutions differ regarding the importance they attach to choice factors.

Methodology

A formal research design was used for this study, and because the researchers had no control over the variables in the sense of being able to manipulate them, an *ex post facto* design was followed. The research was conducted under normal field conditions. Because it was difficult to obtain a complete, up-to-date list of all the first-year Economic and Management Sciences students enrolled at six universities during the first quarter of the academic year, a non-probability sampling method was followed. Unfortunately, not all the HEIs approached were interested in participating in the study. The six universities that agreed to participate in the study were the Tshwane University of Technology, University of the Free State,

University of Johannesburg, University of KwaZulu-Natal, North-West University and University of Pretoria.

Questionnaires were distributed to 250 first-year Economic and Management Sciences students from each of the HEIs, thus aiming for a sample size of 1 500 students. The 250 respondents were chosen on the basis of being available or accessible during normal class times. The initial questionnaire was pre-tested with a convenience sample of 20 first-year students. Data for the study were collected at the beginning of the 2006 academic year, during normal lecture times. The questionnaires were distributed and collected by lecturers, who were also available to answer questions from the students if necessary. A five-point Likert scale questionnaire consisting of questions regarding the importance of various choice factors (ranging from 1 = not important at all to 5 = extremely important), as well as the usefulness of sources of information regarding the university (ranging from 1 = very poor to 5 = excellent) covered the first section of the questionnaire. The questionnaire also contained a section for gathering demographic information on the respondents such as age, gender and ethnic background. The Cronbach alpha reliability coefficient for the choice factors scale was 0.8509, indicating that the scale has acceptable internal consistency reliability.

Data analysis included a combination of descriptive statistics to determine the relative importance of different choice factors and the usefulness of the sources of information, as well as inferential statistics to test the formulated hypothesis. The statistical test used for the hypothesis was multivariate analysis of variance (MANOVA), which assesses the differences between groups collectively rather than individually using univariate tests. The Wilks' lambda was the test statistic used to assess the overall significance of the MANOVA, as the Wilks' lambda is one of the tests that is most immune to violations of the assumptions underlying MANOVA without compromising on power (Hair, Bush & Ortinau 2000: 35). Because the multivariate test of MANOVA shows only an overall significant difference and does not indicate where a significant Wilks' lambda result is found, it was followed by univariate analyses: Scheffé *post hoc* tests were performed to reveal more specific differences between groups on each of the identified choice factors. The significance level for this study was set at a 95% confidence level, thus $\alpha = 0.05$.

Results and discussion

Of the 1 500 questionnaires distributed, 1 241 (83%) were completed by the students. The main findings related to the *socio-demographic dimensions* of the target population were as follows:

- Sixty-four per cent of the respondents were female and 36% male. The reasons why more females participated in the study may relate to higher class attendance by female students, and/or, in the 2006 academic year, possibly more female students enrolled for a degree in the field of Economic and Management Sciences.
- The majority of the respondents (75%) were younger than 20 years. The large percentage of students between the ages of 17 and 19 years correlates with a typical sample of first-year students.
- Forty-six per cent of the respondents were Caucasian, 41% Black African, 9% Indian, 3% Coloured and 1% from other ethnic groups.
- Twenty-one per cent of the respondents were enrolled at the University of Pretoria (UP), 19% at the Witbank campus of the Tshwane University of Technology (TUT), 18% at the North-West University (UNW), 16% at the University of Johannesburg (UJ), 15% at the University of the Free State (UFS) and 11% at the University of KwaZulu-Natal (UKZN).
- As regards home language, the three most prominent home languages were Afrikaans (38%), English (21%) and Zulu (14%).
- The majority of the respondents (60%) were resident in the province of the institution they attended.
- More than half (53%) of the respondents had an average grade of 70% or higher in their final Grade 12 examinations. Forty-seven per cent of the respondents had an average of less than 70%, while only 9% had an average of less than 60% in their final matriculation exams. This low percentage may be an indication that strict admission requirements are applied by HEIs.

The results pertaining to the first research objective on the relative importance of each of the *choice factors* that first-year Economic and Management Sciences students considered when they selected a higher education institution are shown in Table 1.

Table 1 reflects the top 15 choice factors that students considered when they had to make decisions regarding the university at which they chose to enrol. Some of the main findings are as follows:

- The majority of the top 15 factors in this study correspond with the 15 most important factors found in overseas studies, as reported by Hoyt and Brown (2003). Examples of factors in their list that were not reflected in this study are the size of the institution and the surrounding community. As already mentioned, campus safety and security (ranked third in this study) were not among the top 15 factors reported by Hoyt and Brown.

Table 1: Top 15 choice factors

Ranking	Choice factors	Mean
1	Quality of teaching	4.51
2	Employment prospects (possible job opportunities)	4.45
3	Campus safety and security	4.33
4	Academic facilities (libraries and laboratories)	4.21
5	International links (study and job opportunities)	4.18
6	Language policy	4.05
7	Image of higher education institutions	4.04
8	Flexible study mode (evening classes and use of computers)	4.02
9	Academic reputation (prestige)	3.99
10	Wide choice of subjects/courses	3.97
11	Entry requirements	3.75
12	Links with the industry	3.71
13	Fees (cost)	3.70
14	Financial assistance (bursary and loans)	3.69
15	Location of higher education institutions	3.69

- The top five factors listed in Table 1 do not correspond with the following five most important factors mentioned by Coetzee and Liebenberg (2004: 71): academic reputation, image, sporting facilities, friends studying at the same institution and location. The reason why the findings of the two studies differ in this respect might be due to differences in the samples, with their study including 250 Grade 11 and 12 learners attending secondary schools in Gauteng province.
- According to Martin (1994: 36), first-year students at the University of South Australia ranked quality of teaching as one of the most important factors influencing their choice of university. This corresponds with the view of the respondents in this study who indicated that quality of teaching was the most important choice factor.
- The high ranking of employment prospects (second) and international study and job opportunities (fifth) indicate that students are concerned about their future career opportunities, and that the current high unemployment rate in South Africa may contribute to this perception.
- Fees and financial assistance ranked low on the list (13th and 14th respectively), which shows that students are not that concerned about paying for their studies or about the cost. This might be due to the fact that most students do not pay for their own studies. Bers and Galowich (2002: 80), however, found that factors related to money were more important to students than, for example, the reputation of the institution.

- In this study, academic reputation ranked ninth, which contradicts the local studies of Cosser and Du Toit (2002: 95) and Coetzee and Liebenberg (2004: 72). Both these research teams found that reputation is the most important factor influencing students' decisions on which institution to enrol at.
- Finally, findings from a study by Price et al. (2003: 215) show that students in the United Kingdom indicated safety and security as less important factors. The high crime rate in South Africa may be a contributing factor to the high importance of campus safety and security, which ranked third in this study.

Overall, the findings of this study support some of the international and local findings conducted in this field. Davis (1998) found that students in the United States attach high importance to factors such as the beauty of the campus, good sporting facilities and the reputation of a prestigious institution. In this study, however, campus attractiveness ranked only 16th, while sporting programmes were ranked 20th. Hoyt and Brown (2003: 6) point out that several studies list academic reputation, quality of faculty and instruction and employment opportunities as important choice factors. These factors also ranked relatively high in this study (see Table 1). Martins, Loubser and Van Wyk (1996) report that career preparation, specific academic programmes, distance from home, academic reputation and library resources have a strong influence on the selection of HEIs in Australia. This holds true for this study, as almost all of these factors ranked in the top 10, except for the location of an institution, which ranked only 15th. The results of this study support the findings of Coetzee and Liebenberg (2004: 71), in that academic reputation and image are viewed as important choice factors. However, location, friends and sporting programmes were not indicated as very important factors by the respondents in this study.

After the relative importance of the choice factors, the second research objective was to determine whether students from different higher education institutions differ significantly regarding the importance they attach to choice factors when selecting a higher education institution and to test the following hypothesis:

H_1: Students from different academic institutions differ regarding the importance they attach to choice factors.

This hypothesis involves a comparison of six institutions, namely the University of Pretoria (UP), Tshwane University of Technology (TUT), the North-West University (UNW), the University of Johannesburg (UJ), the University of the Free State (UFS) and the University of KwaZulu-Natal (UKZN). The mean values, MANOVA result of the hypothesis test, univariate analysis and *post hoc* comparisons of the six higher education institutions are presented in Table 2. Significant results are indicated in bold.

Table 2: Mean values and MANOVA results for higher education institutions

CHOICE FACTORS	UJ	UKZN	UNW	UP	TUT	UFS	Univariate analysis	F-value	p-value
Wide choice of subjects/ courses (V1)	4.05[c]	4.03[e]	3.82[bcd]	4.04[b]	3.83[a]	4.10[ad]	0.0301		
Quality of teaching (V2)	4.53[e]	4.65[b]	4.69[a]	4.5[d]	4.18[abcd]	4.56[c]	0.0000		
Academic facilities (V3)	4.34[c]	4.48[a]	4.21[e]	4.25[d]	3.72[abcd]	4.44[b]	0.0000		
Entry requirements (V4)	3.81[e]	4.06[abc]	3.64[b]	3.67[a]	3.59[c]	3.87[d]	0.0004		
Fees (V5)	3.63[f]	4.05[ab]	3.71[e]	3.50[ac]	3.43[bd]	3.98[cd]	0.0000		
Location of university (V6)	3.58[d]	3.90[c]	3.66[b]	3.90[a]	3.45[a]	3.78[e]	0.0015		
Sporting programmes (V7)	2.76[a]	2.76[b]	3.00[e]	2.88[d]	2.06[abcde]	2.87[c]	0.0000		
Social life on campus (V8)	3.08[bei]	3.04[cfj]	3.91[abcd]	3.59[efg]	2.29[dghlj]	3.17[ah]	0.0000		
Attractiveness of campus (V9)	3.23[de]	3.46[a]	3.94[abcd]	3.63[e]	3.36[c]	3.39[b]	0.0000		
Campus safety and security (V10)	4.28[e]	4.57[a]	4.41[d]	4.28[c]	4.15[ab]	4.53[b]	0.0000		
On-campus housing (V11)	2.77[behk]	2.49[W]	4.02[abcd]	3.33[ahij]	2.24[dgjk]	3.72[efg]	0.0000		
Parents went there (V12)	1.62[a]	1.57[b]	1.89[c]	1.90[d]	1.81[e]	2.03[ab]	0.0021		
Brother/sister went there (V13)	1.66[a]	1.71[b]	2.04[c]	1.93[d]	1.87[e]	2.12[a]	0.0020		
Friends went there (V14)	2.18[a]	1.92[cef]	2.61[abc]	2.56[fg]	1.94[bdf]	2.59[de]	0.0000		
Academic reputation (V15)	4.24[a]	4.19[b]	4.00[d]	3.96[e]	3.60[abcd]	4.15[c]	0.0000		
Financial assistance (V16)	3.60[ad]	4.02[gh]	4.05[def]	3.46[beg]	3.21[cfh]	4.07[abc]	0.0000		
Language policy (V17)	3.80[c]	3.90[a]	4.44[abc]	4.12[d]	3.85[b]	4.12[e]	0.0000		
Links with the industry (V18)	3.86[b]	3.97[a]	3.53[a]	3.75[c]	3.57[d]	3.73[e]	0.0008		
Multiculturality (V19)	3.52[b]	3.69[a]	2.95[abc]	3.27[d]	3.34[e]	3.47[c]	0.0000		
International links (V20)	4.1[b]	4.18[c]	4.34[a]	4.22[d]	3.95[a]	4.27[e]	0.0053		
Employment prospects (V21)	4.36	4.56	4.45	4.41	4.43	4.50	0.3754		
Flexible study mode (V22)	4.09[e]	4.20[d]	3.95[a]	3.94[b]	3.76[cd]	4.32[abc]	0.0000		
Image of university (V23)	3.87[a]	4.21[c]	4.31[ab]	4.04[e]	3.74[bcd]	4.16[d]	0.0000		
Wilks' lambda								7.59	0.000

BchY˙˙H\Y˙fYgi˙hg˙cZ˙h\Y˙GWYX˙*post hoc* tests are indicated with a to k. All mean values containing the same letters (for example, U
UL]bX]WUhY˙h\Uh˙h\Y˙[fci˙dg˙X]˙Yf]b[]b˙VUˑhim]Zfca˙cbY˙Ubch\Yf"˙5˙`˙a YUb˙jU`i˙Yg˙WcbhU]b]b[˙X]˙YfYbh˙YhhYfg˙fZcf˙Yl Ua˙d˙YʐU˙cf˙VˑL
]bX]WUhY˙h\Uh˙h\YgY˙fcidgXc˙bch\X]˙Yf]b[]b˙WUˑhim]Zfca˙cbY˙Ubch\Yf"

Table 2 indicates that the Wilks' lambda value shows a significant difference ($p = 0.000$) between higher education institutions in terms of the importance they attach to the 23 choice factors. The null hypothesis was thus rejected, as there was support for H_1.

It is also evident from Table 2 that these differences were significant for 22 of the 23 choice factors, with the only exception being that the responses from all six HEIs rated 'employment prospect' as very important. The Scheffé *post hoc* tests revealed that there are significant differences, which included the following:

- Students from UFS attach higher importance to a wide choice of subjects/courses than students from TUT and UNW, while students from UP and UJ also attach higher importance to this factor than students from UNW.

- Students from TUT rank the following choice factors the lowest of all the six institutions: importance of quality of teaching, academic facilities, entry requirements, fees, location of an institution, sporting programmes, social life, campus safety and security, on-campus housing, academic reputation, financial assistance, international links, flexible study mode and the image of a institution. TUT's mean value for quality of teaching was 4.18, while all the other higher education institutions ranked it as more important, with means ranging from 4.53 to 4.69. Students from TUT differ significantly from students at all the other institutions (with the exception of students from UNW) with respect to the importance of academic facilities. Students from TUT also differ significantly from all the other higher education institutions with respect to the importance of social life on campus. Social life is most important to students from UNW and UP, while it is least important to students of TUT. Students from TUT differ significantly from students at UJ, UKZN, UNW and UFS on the importance of academic reputation.

- Entry requirements were ranked the most important by students at UKZN (mean of 4.06), who therefore differ significantly from students at UP, UNW and TUT, with mean values ranging from 3.59 to 3.81.

- UKZN and UFS have the highest mean values, while UP and TUT have the lowest mean values for the choice factor referring to fees. Thus, there is a significant difference in the importance attached to fees between students from UKZN and UFS compared with students from UP and TUT.

- The location of an institution is more important to students from UP than students from TUT.

- There are significant differences in the importance of the attractiveness of a campus between students from UNW and students from UKZN, UFS, TUT and UJ. This choice factor was more important to students from UNW (mean of 3.94) and UP (mean of 3.63), but of less importance to students from the other four institutions (means ranging from 3.23 to 3.46).

- There is a significant difference between the mean scores of the six higher education institutions and the importance of on-campus housing. UNW had a

mean score of 4.02, indicating that it is very important, while the mean scores of TUT, UKZN and UJ ranged between 2.24 and 2.77, indicating that this is of little importance to them.

- Students from UFS ranked the importance of parents and brothers/sisters attending an institution the highest of all the higher education institutions. It should be noted that the fact that parents and brothers/sisters attended an institution was of low importance to the respondents from all the higher education institutions. UFS differed significantly from students from UJ and UKZN on the importance of parents attending a higher education institution. Students from UFS also differed significantly from students from UJ on the importance of the fact that brothers/sisters attended the institution.
- Students from UNW, UFS and UP attach higher importance to the fact that their friends attended a university than the remaining higher education institutions.
- There is a significant difference between the respondents from the different higher education institutions with respect to the importance they attach to financial assistance. UKZN, UNW and UFS have the highest mean values (ranging from 4.02 to 4.07) for financial assistance, while TUT, UJ and UP have lower mean values (ranging from 3.21 to 3.60), indicating that financial assistance is less important.
- The language policy is of lesser importance to students from TUT, UJ and UKZN, with mean values ranging from 3.85 to 3.90, but is of great concern to students at UNW as indicated by the mean value of 4.44. Students at UNW also ranked the image of an institution as very important, with a mean value of 4.31, while for the students of TUT, image is less important (mean value of 3.74).
- Although links with industry are moderately important to students at all six higher education institutions (mean values between 3.53 and 3.86), students at UKZN ranked it more important than students at UNW.
- The fact that an institution is multicultural is more important to students at UKZN, UJ and UFS than to students at UNW.
- Although international links are moderately important (mean values between 3.95 and 4.34) to all six higher education institutions, students at UNW ranked this factor as more important than students at TUT.
- A flexible study mode was the most important to students at UFS and UKZN, while TUT students in particular rated its importance as low. In this regard, there is a significant difference between students at TUT and students at UKZN and UFS, as well as between students at UFS and UNW, UP and TUT.

Apart from including choice factors as a construct in the study, the third research objective aimed to determine the usefulness of the sources of information considered by students, as shown in Table 3.

Table 3: Usefulness of information sources

Information source	Percentage of respondents in each cell						Number of respondents (N)	Mean	SD
	* Not Applicable	Very Poor	Poor	Fair	Good	Excellent			
	0	1	2	3	4	5			
School visits	21.00	8.12	7.38	18.54	26.58	18.38	1 219	2.77	1.80
University publications	5.41	2.38	5.74	23.63	37.98	24.86	1 219	3.61	1.28
University web site	14.11	2.28	4.24	19.33	34.26	25.77	1 226	3.35	1.63
Campus visits and open days	11.73	3.09	3.99	15.72	35.02	30.46	1 228	3.51	1.59
Alumni	11.16	3.94	6.23	29.29	34.62	14.77	1 219	3.17	1.46
Parents	13.37	5.62	7.74	30.32	28.93	14.02	1 225	3.08	1.50
High school teachers	11.27	5.55	8.65	30.04	27.84	16.65	1 087	3.47	1.09
Word-of-mouth	4.25	3.68	5.39	26.14	38.97	21.57	1 224	3.57	1.23
Advertisements on radio	20.15	10.03	17.86	22.59	16.39	12.97	1 226	2.44	1.66
Events on campus	17.32	7.35	8.74	21.00	25.00	20.59	1 224	2.91	1.73
Advertisements in magazines/newspaper	14.58	7.65	13.03	26.38	25.41	12.95	1 228	2.79	1.57
Advertisements on television	29.21	17.43	18.09	17.27	11.78	6.22	1 222	1.84	1.59
Other	77.98	3.44	2.69	6.12	6.12	6.65	931	0.70	1.45

* Responses that were not applicable were eliminated from the data set for further analysis.

The usefulness of different information sources was measured on a five-point Likert scale ranging from very poor to excellent. Table 3 highlights the mean, standard deviation and number of responses for each identified source of information. The following can be deducted from Table 3:

- University publications were the most useful source of information with the highest mean of 3.61, followed by word-of-mouth with a mean of 3.57.
- The least useful source of information, apart from the 'other' sources category, was advertisements on television and radio.
- Responses on the usefulness of school visits by university staff differed the most, with a standard deviation of 1.80, suggesting that respondents had a low level of agreement on the usefulness of this source of information.
- Campus visits and open days were rated as excellent by 30% of the respondents, followed by university web sites, which were rated as excellent by 26% of the respondents.
- Almost 60% of the respondents rated the usefulness of university web sites as good or excellent, suggesting that students had access to the Internet.
- A high percentage of respondents indicated school visits, and radio and television advertising as not being applicable, indicating that some of the higher education institutions are not currently making use of this medium to reach potential students.
- Although 60% of respondents rated friends (word-of-mouth) as a good to excellent source of information, respondents did not necessarily choose an institution because their friends had studied there previously.

Thus, it can be concluded that although some local and international findings were supported, there were also a number of differences in the findings of this study, which suggest that the student market is not homogeneous and highlights the fact that higher education institutions need to continuously research their markets in order to better understand their needs and wants. The results further show that not all choice factors are equally important.

Limitations

Several limitations should be noted. Firstly, due to the type of sample drawn for this study (non-probability sampling technique), the non-response error and sampling error could not be determined, and future researchers should consider drawing a probability sample. Secondly, the study was limited to students from six universities located in five provinces with an unequal distribution between gender

and ethnic groups. Future studies should perhaps endeavour to accommodate all the institutions of higher learning in the country so as to have a more representative sample. Finally, the study had a retrospective focus, as the sample population included first-year students reporting on how they had made their institutional selection the previous year. First-year students thus acted as 'substitutes' for Grade 11 and Grade 12 learners in the study, because of the difficulties associated with gaining permission to access school learners. Despite these limitations, the findings from this study provide guidance to higher education institutions on choice factors used in the selection process as well as the usefulness of sources of information.

Conclusion and recommendations

More than 12 years ago, Bradley (1995: xxviii) mentioned that "marketing is a concern for all people and organisations at all times". In today's highly competitive environment, these words seem to be even more relevant than ever. New insights gained from research on university choice factors will help HEIs to understand how prospective students make buying decisions, especially when they have to decide which university to attend. Their marketing strategies can be revised, and appropriate marketing plans and tactics can be employed. The findings of this study provide an understanding of the choice factors that are most important to students, as well as insight into sources of information or promotional tools that can be used to communicate with prospective students.

Furthermore, the findings of this study could be used by HEIs to assist prospective students in making more informed decisions and more appropriate choices. Ultimately, HEIs in South Africa could use the information from the study to become more marketing-oriented and to adapt their marketing mix to correspond with the findings of the study, and to recruit and retain quality first-year students.

This study measured the perceptions of students in the field of Economic and Management Sciences. It is recommended that similar studies be conducted with students in other fields of study. More qualitative research could be undertaken, for example, to determine what constitutes an attractive campus or why parents and teachers are not valuable sources of information. Future researchers may also want to focus on segmenting the market based on choice factors and/or information sources. Future studies could also concentrate on the reasons why students do not rate advertisements in the media (print, radio and television) highly as sources of information. Comparison studies between South Africa and universities overseas on the generic choice factors that are relevant for all universities could be considered. To gain a better understanding of the diverse nature of students in South Africa,

longitudinal research studies on aspects such as students' media use and reasons for choosing an institution, similar to American CIRP surveys, are recommended.

References

Akoojee, S. & Nkomo, M. 2007. 'Access and quality in South African higher education: the twin challenges of transformation', *South African Journal of Higher Education,* 12(3): 385–399.

Absher, K. & Crawford, C. 1996. 'Marketing the community college starts with understanding student's perspective', *Community College Review*, 28(Spring): 59–68.

Abaya, E. 2004. 'Marketing Lakehead', *AGORA Online Newsletter,* 21(3).

Arpan, L.M., Raney, A.A. & Zivnuska, S. 2003. 'A cognitive approach to understanding university image', *Corporate Communications*, 8(2): 97–113.

Baird, K. 2006. 'The political economy of college prepaid tuition plans', *Review of Higher Education,* 29(2): 141–166.

Bajsh, A. & Hoyt, J.E. 2001. 'The effect of academic scholarship on college attendance', *College and University*, 76(4): 3–8.

Ballinger, P.A. 2005. 'College selection should be an educational experience', *Chronicle of Higher Education,* 51(25): 37–40.

Bers, T.H. & Galowich, P.M. 2002. 'Using survey and focus group research to learn about parents' role in the community college-choice process', *Community College Review*, Spring, 29(4): 68–82.

Bonnema, J. & Van der Waldt, D.L.R. 2008. 'Information and source preferences of a student market in higher education', *International Journal of Education Management,* 22(4): 314–327.

Bradley, F. 1995. *Marketing Management.* London: Prentice Hall.

Bradshaw, G.S., Espinoza, S. & Hausman, S. 2001. 'The college decision-making of high achieving students', *College and University*, 77(2): 15–22.

Chapman, D.W. 1981. 'A model of student college choice', *Journal of Higher Education,* 52(5): 490–505.

Canadian Universities. 2000. *Which university in Canada to apply to.* [Online] Available from: www.campusacess.com/campus_web/educ/e4high_choc.htm. Accessed: 25 April 2005.

Coetzee, M.D. & Liebenberg, E. 2004. The influence of corporate reputation on the choice of the University of Pretoria as a preferred HEI: a survey of high-school learners in the Pretoria region. Unpublished honours dissertation, University of Pretoria, Pretoria.

College Board. 2005. Recruitment and Admission: ASQ and ASQ PLUS. 2005. [Online] Available at: www.collegeboard.com/highered/ra/saq.htmlp. Accessed: 23 May 2005.

Cosser, M. & Du Toit, J. 2002. *From School to Higher Education: Factors Affecting the Choice of Grade 12 Learners.* Cape Town: HSRC.

Davis, K. 1998. 'State universities to cheer about affording college', *Kiplinger's Personal Finance Magazine,* September 1998.

Dennis, M.J. 2005. *Ten Trends in Higher Education*. Madison, WI: Magna.

De Vries, A. 2007. 'Universiteite van die hele wye wêreld', *Rapport,* 18 November.

De Wet, G.F.D. 1983. Beeld van die Universiteit van die Oranje-Vrystaat. Unpublished masters dissertation, University of South Africa, Pretoria.

Diederichs, A.W. 1987. Bepaling van 'n bemarkingstrategie vir Technikon Pretoria aan genoteerde vervaardigers in die Pretoria-Witwatersrand-Vereeniging gebied. Unpublished masters dissertation, Technikon Pretoria, Pretoria.

Ehrenberg, R.G., Zhang, L & Levin, J. 2006. 'Crafting a class: the trade-off between merit scholarships and enrolling lower-income students', *Review of Higher Education,* 29(2): 195–211.

Espinoza, S., Bradshaw, G. & Hausman C. 2002. 'The importance of college factors from the perspective of high school counsellors', *College and University,* 77(4): 19–24.

Fataar, A. 2003. 'Higher education policy discourse in South Africa: A struggle for alignment with macro development policy', *South African Journal of Higher Education* 172: 31–38.

Freeman, K. 1999. 'Will higher education make a difference? African Americans' economic expectations and college-choice', *College and University* (2): 7–13.

Geraghty, M. 1997. 'Finances are becoming more crucial in students' college-choice', *Chronicle of Higher Education,* 17(43): 19–41.

Goff, B., Patino, V. & Jackson, G. 2004. 'Preferred information sources of high school students for community colleges and universities', *Community College Journal of Research and Practice*, 28(10): 795–803.

Gray, M. & Daugherty, M. 2004. 'Factors that influence students to enrol in technology education programmes', *Journal of Technology Education,* 15(2): 23–31.

Haigh, M.J. 2002. 'Internationalisation of the curriculum: designing inclusive education for a small world', *Journal of Geography in Higher Education,* 26(10): 49–66.

Hair, J.F., Bush, R.P. & Ortinau, D.J. 2000. *Marketing Research*. Singapore: McGraw-Hill.

Haviland, J.E. 2005. 'Preview colleges to give kids a preference and a priority', *Education Digest,* 70(5): 62–63.

Hawkins, D.I., Mothersbaugh, D.L. & Best, R.J. 2001. *Consumer Behaviour. Building Marketing Strategy,* 8th edition. New York: McGraw-Hill.

Hoyt, J.F. & Brown, A.B. 2003. 'Identifying college choice factors to successfully market your institution', *College and University,* 78(4): 3–5.

Jansen, J.D. 2003. 'On the state of South African universities', *South African Journal of Higher Education,* 17(3): 9–12.

Jonas, P.N. & Popovics, A.J. 1990. 'Students' perception of an independent college', *College and University,* 63(2): 187–197.

Jones, M. 2002. The effectiveness of marketing communication strategies employed by universities and technikons in the Cape Peninsula with specific reference to career

exhibitions and open days in attracting first year students. Unpublished masters dissertation, University of Cape Town, Cape Town.

Kotler, P. & Armstrong G. 2001. *Principles of Marketing,* 9th edition. Englewood Cliffs, NJ: Prentice-Hall.

Kruger, A.J. 1994. Faktore wat die beeld van 'n S.A. universiteit bepaal. Unpublished masters dissertation, Potchefstroom University for CHE, Potchefstroom.

Kwong, J. 2000. 'Introduction: marketisation and privatisation in education', *International Journal of Educational Development,* (20): 87–92.

Lamb, C.W., Hair, J.F., McDaniel, C., Boshoff, C. & Terblanche, N.S. 2004. *Marketing,* 2nd edition. Cape Town: Oxford University Press.

Lee, J. & Clery, S. 2004. 'Key trends in higher education', *American Academic*, June: 21–36.

Martin, C.D. 1994. 'How do rural students choose a campus: A case study of the University of South Australia', *Rural Society*, 5(2):28–36.

Martins, J.H., Loubser, M. & Van Wyk, H.J. 1996. *Marketing Research: a South African approach.* Pretoria: Unisa Press.

Melewar, T.C. & Akel, S. 2005. 'The role of corporate identity in the higher education sector', *Corporate Communication*, 10(1): 41–57.

Mills, M. 2004. 'Do and should financial aid packages affect student's college-choices?', *Journal of College Admission,* (183): 28–29.

Mok, K. 2003. 'Globalisation and higher education restructuring in Hong Kong', *Higher Education Research and Development,* 22(2): 117–129.

Mouwen, K. 2002. 'Structure and culture of the hybrid university: towards the university of the twenty-first century', *Tertiary Education and Management*, 6(1): 47–56.

Mowen, J.C. 1995. *Consumer Behaviour,* 4th edition. New Jersey: Prentice-Hall.

Newby, P. 2003. 'Promises and actions: Are universities the problem in building partner-ships?', *GeoJournal,* 41(4): 351–358.

Pabich, I. 2003. 'Public relations: an instrument of co-operation linking the private sector and higher education', *Higher Education in Europe,* 28(4): 519–522.

Palacio, A.B., Meneses, G.D. & Perez, P.J. 2002. 'The configuration of the university image and its relationship with the satisfaction of students', *Journal of Educational Administration*, 40(5): 486–506.

Price, I.F., Matzdorf, F., Smith, I. & Aghai, H. 2003. 'The impact of facilities on student choice of university', *Facilities,* 21(10): 212–230.

Punnarach, S. 2004. The image of private universities from high school students' and occupational students' viewpoint. Unpublished doctoral thesis, Kasem Bundit University, Bangkok.

Randall, S.N. 2001. Cooperative Institutional Research Program (CIRP) survey of Saginaw Valley State University, FTIC FRESHMAN.

Rindfleish, J.M. 2003. 'Segment profiling: reducing strategic risk in higher education managements', *Journal of Higher Education Policy and Management*, 25(2): 147–159.

Roux, P. 1994. 'n Ondersoek na die korporatiewe beeld van die Departement Bedryfsielkunde

van die Universiteit van Stellenbosch. Unpublished masters dissertation, University of Stellenbosch, Stellenbosch.

Sevier, R.A. 1993. 'Recruiting African American undergraduates: a national survey of the factors that affect institutional choice', *Colleges and University,* 68 (1): 48–52.

Seymour, L. 2000. 'Giving the Web the new college try: students online surf to sample life on campus', *Washington Post,* 28 March: 11.

Shin, J. & Milton, S. 2006. 'Rethinking tuition effects on enrollments in public four-year colleges', *Review of Higher Education,* 29(6): 213–237.

Valiulis, A.V. 2003. 'Transit economy challenge and university respond', *European Journal of Engineering Education,* 28(4): 453–464.

Van Biljon, E.H.B. 1992. Mark posisionering met die oog op strategiese onderwysdienste met besondere verwysing na die Universiteit van Port Elizabeth. Unpublished masters dissertation, University of Port Elizabeth, Port Elizabeth.

Van Dimitrios, P. 1980. A marketing study for higher education using southeast Missouri State University and its service area. Dissertation, Southern Illinois University at Carbondale, Illinois.

Van Niekerk, M.P. 2004. 'The national plan for higher education in South Africa and African indigenous knowledge systems: a case of conflicting value systems', *South African Journal of Higher Education,* 18(3): 115–126.

Whyte, A. 2001. 'Positioning Australian universities for the twenty-first century', *Open Learning,* 16(1): 27–33.

Zeithaml, V. & Bitner, M. 2003. *Services Marketing,* 3rd edition. Boston: McGraw-Hill.