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Communicating to prospective students through appropriate sources of information: a comparative study of selected public higher education institutions

A*BSTRACT*

A proper assessment of the usefulness of the sources of information considered by prospective students could enable higher education institutions (HEIs) to allocate funds, time and resources more efficiently and effectively. The main objective of this study was to determine students' perceptions on the usefulness of sources of information that they used to select a public HEI in South Africa, and further to establish whether differences occur between the perceptions of students from various institutions.

A quantitative study with a self-administrated questionnaire was used to obtain information by means of a non-probability convenience sample of 1 241 students from six public HEIs in South Africa. The findings indicated that prospective students find sources of information coming directly from a public HEIs - such as campus visits and open days, university publications and websites – to be of most use, while information from mass media, such as radio, television, magazines and newspaper advertisements are less important.

The responses of students from the different institutions varied significantly regarding the usefulness of sources of information in selecting a public HEI. Although university publications, campus visits and open days, and also websites ranked high, the importance ranking between respondents from different institutions varied.

The findings can be used to develop student-focused marketing communication that could aid prospective students in making more informed decisions about the public higher education institution they wish to attend.

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INTRODUCTION

Higher education, globally, is undergoing considerable change, such as the forming of partnerships, a focus on the global market and increased competition (Whyte, 2001: 27). Public higher education institutions (HEIs) in South Africa are facing an ever-changing environment and a new landscape – one characterised by the changing size and shape of the sector, the changing meaning of autonomy and accountability, and the changing nature of higher education providers. Student distribution (both demographic and geographical), the changing organisation of higher education institution management and governance, and also the changing roles of modes of delivery, all further contribute to the changing landscape (Jansen, 2003: 9).

While 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 (NQF) do create new opportunities, they also pose threats to especially public HEIs. The NQF endeavours to provide learners with mobility and easier access to education and training. Competition is intense and public HEIs have to market themselves effectively and be creative and innovative to meet these challenges.

Previous international research in this field provides insight into the above-mentioned challenges and problems. Many researchers have explored the impact and problems of changes in the environment of HEIs, such as increased competition from private and public institutions, decreased funding and globalisation (Mayhew et al., 2004; Tjeldvoll & Holtet, 2003; Valiulis, 2003;). Some researchers have emphasised the importance of the image of an HEI when students select a suitable HEI (Arpan et al., 2003; Pabich, 2003; Palacio et al., 2002).

Local studies addressing aspects of higher education marketing include: 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).

Despite these above-mentioned research topics, little is known about the sources of information utilised by prospective students when selecting a public HEI. This study investigates the usefulness of the sources of information prospective students consider in their selection process. As public HEIs are the focus of this study, reference to higher education institutions pertains specifically to *public* HEIs. Findings may provide guidelines to South African HEIs to implement strategies to maintain and enhance their competitiveness, develop a competitive advantage and reach the prospective student market.

1.   *CONTEXTUALISATION OF STUDY*

Public higher education in South Africa

During the past few years, South Africa's higher education sector faced several challenges, including a decrease in government funding for HEIs, enrolment capping resulting from to increased student admissions, a notion of quality assurance to attract quality students, an increase in competition through the emergence of private higher education, mergers of institutions (similar to the mergers in Australia and New Zealand), and global trends of internationalisation (Akoojee & Nkomo, 2007; De Vries, 2007; Hay & Van Gensen, 2008; Louw & Mayer, 2008; Zuber-Skerrit, 2007). While many of these challenges are evident globally, it should be remembered that the situation of higher education in post-apartheid South Africa is quite different on account of the country's distinctive historical, cultural and socioeconomic circumstances (Ngqiyaza, 2009; Zuber-Skerritt, 2007).

Currently, in South Africa, nearly one in five of the school-leavers who pass Grade 12 (final year of high school) enter an HEI, with well over 700 000 students studying at 23 different public HEIs across South Africa (Higher Education South Africa, 2008). For South Africa's public universities, as is the case in most public-funded higher education systems, the government has historically been the most important source of financial support. However, in recent years, public funding for higher education in South Africa has declined, thereby bringing increased pressure to bear on HEIs to find non-government sources of funding and other resources.

New challenges await the higher education sector in the near future as South Africa's National Department of Education has split into two - one department dealing with basic and the other with post-secondary education. The new Minister of Higher Education and Training (Dr Blade Nzimande) has proposed several solutions for higher education, namely revisiting institutions merged under the government's radical restructuring five years ago, reopening teacher training colleges previously incorporated into universities, and providing free education up to the first degree (MacGregor, 2009).

Marketing of higher education institutions

Education can be classified as a service, and services can include a place, an idea, a person or an activity, with satisfaction or benefits offered for sale that are essentially intangible and do not result in the ownership of anything. As a result, services normally require more quality control, supplier credibility and adaptability (Kotler & Keller, 2006: 374). Some authors view services as acts, performances and experiences that create benefits for customers (Baron & Harris, 1995; Brassington & Pettitt, 2007; Lovelock & Wright, 1999; McColl-Kennedy, 2003). Based on the aforementioned service definitions, HEIs can be classified as 'places' - with benefits or satisfaction - that offer services for sale.

According to Abaya (2004: 3), marketing an HEI is, paradoxically, simple and complex at the same time. Part of it is that business success is measured fundamentally in revenues and profits. In contrast, institutions of higher learning exist primarily to provide students (customers) with a one-of-a-kind education and an enjoyable campus experience. HEIs not only compete for students and staff, but also for funding. It is the continual decrease in funding that emphasises the importance for educational institutions to apply marketing principles (Andreasen & Kotler, 2003: 31). This includes using a proper marketing philosophy, following a systematic approach to solving marketing problems, and having both an awareness and the ability to apply the very latest concepts and techniques from the private sector.

In a market where students are recognised as customers, HEIs need to communicate the value of their organisation in an effective and consistent way to all the relevant stakeholders, and further to ensure that they reach the student market by including institutional information in the sources that students consult or use (Abaya, 2004; Bodoh & Mighall, 2002; Jarzabkowski & Wilson, 2002; Melewar & Akel, 2005: 41). This implies that HEIs need to be both seen and heard by their target market. One means of achieving this is by establishing a unique difference by communicating the institution's strengths and, in so doing, giving students a reason to choose a particular institution (Bonnema & Van der Waldt, 2008: 315). Efforts will have to include more targeted advertisements and promotional material, and also general efforts to position the institution in respect of competitors in the minds of prospective students and their parents.

Many authors discuss the pressures and changes in the higher education landscape, including a decrease in government funding, the quest to attract quality students, mergers, an increase in competition between institutions, and also global trends of internationalisation (Espinoza et al., 2002; Haigh, 2002; Louw & Mayer, 2008; Mouwen, 2002; Mok, 2003; Rindfleish, 2003;; Whyte, 2001). The aforementioned authors state that, in response to the pressures of the changing higher education environment, there have been expanded efforts by HEIs to understand and influence the decision-making processes among prospective students.

Consumer behaviour in an educational environment

An important area in the study of consumer behaviour is the consumer decision-making process, which involves the analysis of how customers choose between two or more alternative purchases, the behaviour that takes place both before and after the choice, and also the purchasing patterns that emerge as a result of this process. Peter and Olson (2005: 169) identify five stages in the decision-making process: problem recognition, search for information, alternative evaluation, choice, and post-purchase evaluation.

The levels of personal involvement and prior experience will influence just how complex and time consuming the decision-making process for a student will be. Prospective students in higher education in South Africa undergo an extensive decision-making process with high involvement when applying for a course of study because it has long-term consequences (future career, friendships and life satisfaction), involves major sacrifices (expensive and time consuming) and

entails high risk (failure or the possibility of no employment). This process commences in Grade 9 when learners have to make a choice of subjects, which are carried through to Grade 12. These subjects play a role in the career paths of learners, in that they form part of the entrance requirements for higher education and the specific prerequisites in respect of certain programmes. Learners normally only enquire about institutions and programmes when they reach Grade 11 or Grade 12. The decision-making process is therefore lengthy. Gray (in Pimpa, 1999) views the 'purchase' of higher education as a high-involvement purchase, owing to its high cost, high personal relevance, the variety of different alternatives available and the time taken to make the decision. During and after the time, students gather information about various alternative solutions to a recognised problem (thus the different HEIs available), they evaluate the alternatives and select the course of action that seems most likely to solve their problem. Evaluative criteria are used to compare the different alternatives. According to Hawkins et al. (2004: 568), evaluative criteria can be described as those features or characteristics that consumers look for when buying a specific product or service. The final step in the decision-making process, namely the post-purchase phase, has four components: post-purchase dissonance, service product use, service product disposition and purchase evaluation.

The focus of this study is on the use of sources of information in selecting an HEI and the remainder of the discussion will be on the information-search phase. Prospective students, after identifying a problem of sufficient magnitude themselves start the search process to acquire information about products or services that may eliminate the problem. MacInnis (2002) notes that recruiting students is becoming more competitive and that institutions must find efficient and effective means of providing students with information while they are in the process of deciding.

When searching for information, customers have to take decisions on what sources of information to use and on how many sources to consult (Hawkins et al., 2004: 530; Kyung-Sun & Sei-Ching, 2007: 657). Two types of consumer search processes can be identified, namely internal and external searches. Internal sources of information are a consumer's memory of past searches, personal experiences and low-involvement learning. External search involves acquiring information from any outside sources. Various types of external sources of information exist: personal sources, such as friends, family, career-guidance teachers, reference groups and opinion leaders; independent sources, e.g. consumer groups, government agencies, the Internet and service experts; marketing sources like sales personnel, advertising, websites or brochures of the organisation; and, experiential sources, such as organisational visits (Hawkins et al., 2004: 530).

Zeithaml and Bitner (2000: 32-33) state that the service industry recognises the strong influence of word-of-mouth, which gives the consumer an opportunity of reducing risk because it is regarded as highly credible and trustworthy. Research conducted by Mitra et al. (1999: 223) supports the common marketing belief that customers prefer personal sources of information over impersonal sources of information.

Findings from previous research studies report different importance levels with regard to the usefulness of sources of information. A South African study suggested that prospective students

considered experiential sources of information – e.g. campus visits and open days - as the most important sources of information (Coetzee & Liebenberg, 2004: 70-71). The same authors also reported that prospective students attached high importance to activities on campus as a source of information and that such respondents were more willing to attend exhibitions or open days to secure first-hand information than to rely on mass media. Another local study found that receiving information directly from a university was the most important source of information used by high-school learners (Cosser & Du Toit, 2002: 101-103).

Some international studies report that marketing sources such as advertisements, websites, email and brochures are effective in reaching prospective students. According to a press statement by the Primary Research Group (2007), more than 47 percent of American universities use web advertising to market their institutions. Other researchers report that universities in the Los Angeles area mainly use recruiting catalogues and glossy alumni magazines to market their institutions (Warren, 1994), whereas some universities make use of guidebooks, private counsellors, and magazines to market theirs (McDonough, 1994: 427).

Studies in the US differ in terms of the usefulness, to prospective students, of sources of information. One study (Hoyt & Brown, 2003: 4) reported that websites were the most important source of information for prospective students, while another study identified campus visits to be the most influential source of information (Seymour, 2000: 11). The least influential sources of information in the aforementioned studies were listed as being advertisements in magazines, newspapers, radio and television. Some studies detected the geographical location of students as influencing the institution-selection process in that students who live far from the education institution make an effort to attend an open day or visit the campus to gain first-hand experience (Martin, 1994: 37; Anon, 2006; Evans, 2006). Karuppan (2001: 138-149) determined that scholastic aptitude or the academic ability of students influenced their web usage, so that students with a higher academic ability made more frequent use of the web as a source of information.

Because of the inconsistent results reported in previous research pertaining to the usefulness of various sources of information, as well as limited research on specifically the South African situation, the need for more research is clear: hence the necessity for the present study.

2.   AIM OF THE RESEARCH

As mentioned at the outset, factors such as an increase in competition and a decrease in government funding require public HEIs to make use of the most effective sources of information. In this restricted financial environment, public HEIs will have to assess and reassess their use of sources of information, and adapt their communication strategies, if necessary, to attract quality students.

Despite multiple research studies having been conducted over the past twenty years, conflicting evidence exists about the usefulness of sources of information, with only limited evidence from South African students in public HEIs on the usefulness of sources of information. This has led

to four objectives: (1) to establish whether differences in the use of sources of information occur between students from different institutions; (2) to rank the perceptions of students from each institution on the usefulness of the sources of information they used in selecting a public HEI in South Africa; (3) to determine whether geographical distance from the public HEI influences the type of information source (specifically campus visits and open days) used; and, (4) to determine whether academic performance influences perceptions concerning the usefulness of public HEI websites as a sources of information. The results of this study will be used to provide insight into the communication media to be used in promoting public HEIs as part of the sources of information used by prospective students to evaluate an institution.

To address the objectives, the following hypotheses were formulated:

H_0: Students from various public HEIs do not differ in respect of the usefulness they assign to sources of information when selecting an HEI.

H_1: Students from various public HEIs differ in respect of the usefulness they assign to sources of information when selecting an HEI.

H_0: Students who live farther than 70 kilometres from a public HEI do not assign more value to campus visits and open days as sources of information than do students living in close proximity to the public HEI.

H_2: Students who live farther than 70 kilometres from a public HEI assign more value to campus visits and open days as a source of information than do students living in close proximity to the public HEI.

H_0: Students with a Grade 12 average of 70 percent or higher do not rely significantly more heavily on public HEIs' websites as sources of information than do students with a Grade 12 average of less than 70 percent.

H_3: Students with a Grade 12 average of 70 percent or higher rely significantly more heavily on public HEIs' websites as sources of information than do students with a Grade 12 average of less than 70 percent.

3. METHOD

The sample population included first-year students who had to report how they had made their selection of HEI during the previous year. Of all the public HEIs approached, only six South African HEIs agreed to participate in this study: the University of Pretoria; Tshwane University of Technology; University of Johannesburg; University of the Free State; University of KwaZulu-Natal; and the North-West University. It is unfortunate that some of the major public HEIs in both the Western and the Eastern Cape declined to participate in the study.

Sampling

Fieldwork was conducted at the beginning of the year among first-year students in the field of Economic and Management Sciences in to enable them to recall what had influenced their choice

of institution, and also what sources of information they had found to be most useful. Because of the difficulty of obtaining permission from the Department of Education to include final-year secondary school learners in the study, first-year higher education students were selected as so-called "substitutes" for the school learners. It is unclear how the perceptions of the substitutes may have affected the results and whether they may have been contaminated since they had been accepted as students at the respective public HEIs. However, as suggested by Menon et al. (2007: 711), first-year students are considered to be suitable substitutes as they still have a relatively accurate recollection of the decision-making process which had preceded their entry into higher education.

A non-probability convenience sample was chosen, as the characteristics of this method have particular appeal due to financial and time constraints. It also allowed fieldworkers to select respondents on the basis of being available or accessible during normal lecturing periods. A major implication of this type of sampling is that a statistical evaluation of the sampling error cannot be undertaken (Tustin et al., 2005: 344). Although a non-probability convenience sample was chosen for this study, a method not allowing for generalisations to be made, the sample size is rather large, which may enhance the findings and arguments.

To avoid the potential bias in respect of the use of non-probability convenience sampling, the questionnaire was administered at six different public HEIs, at different times and in different classes, and by different lecturers who acted as fieldworkers. The sample size was determined by practical constraints regarding resources in terms of money, time and staff impact, the number of respondents present in class, and the students' willingness to participate. A total of 1 500 questionnaires (250 per institution), of which 1 241 were completed and returned, were distributed.

Measuring instrument

A self-administrated questionnaire was used to collect the data after it had been subjected to pre-testing. The questionnaire was based on an adapted version of the Admitted Student Questionnaire (ASQ) and on the Cooperative Institutional Research Programme (CIRP) (Randall, 2001; College Board, 2005). No incentives were provided for completing the questionnaires. The twelve sources of information were measured using 5-point Likert scales ranging from very poor (1), poor (2), fair (3), good (4), and excellent (5).

Data analysis

Data analysis consisted of descriptive statistics (mainly ranking of sources of information) and hypothesis testing. MANOVA (Multiple Analysis of Variance) was used to test Hypothesis 1, as it assesses the differences between groups collectively rather than individually with univariate tests. The objective of MANOVA is to test for differences in the mean values of several dependent variables (Lattin et al., 2003: 389). The assumptions underlying MANOVA were of no concern in that violations of said assumptions have little impact on large sample sizes (Tabachnick & Fidell, 2001: 329; Hair et al., 2006: 400), as was the case in the current study with a sample size of 1 241.

The Wilks' lambda test statistic was used to assess the overall significance of the MANOVA because it is relatively immune to violations of the assumptions underlying MANOVA without however compromising on power (Hair et al., 2006: 387). Because the multivariate test of MANOVA shows only an overall significant difference and does not pinpoint where a significant Wilks' lambda result was found, this was followed by univariate analyses, where Scheffè *post hoc* tests were performed to reveal more specific differences between groups on each of the identified choice factors.

Hypotheses 2 and 3 involved comparisons between the mean scores of two independent groups and t-tests were therefore conducted. Two assumptions underlie the t-test (Diamantopoulos & Schlegelmilch, 2000: 185). First, the equality of variance assumption was tested using Levene's F-test for variability. If the F-test was significant, the t-test assuming unequal variance, also known as the separated variance t-test, was used. If the F-test was not significant, the t-test assuming equal variance - also known as the pooled variance t-test - was used. The normality assumption was not a concern in that t-tests are robust to violations of the normality assumption, especially if both groups are large (n>30) and more or less equal in size, as was the case with the large sample of the study (n=1 241) and with the groups being more or less equal in size (StatSoft, 1983-2004). The significance level for all hypotheses was set at a 95 percent confidence level, thus α=0.05.

4. RESULTS

The socio-demographic profile show that more than 87 percent of the sample were 20 years and younger, and consisted of 64 percent female and 36 percent male respondents. The ethnic distribution was 42 percent black respondents, 46 percent white respondents, three percent coloured respondents and nine percent Indian respondents. It may also be worthwhile to note that the population statistics for all undergraduate students enrolled at public HEIs in South Africa are 45 percent male and 55 percent female, with a racial spread of 31 percent white, 51 percent black, 11 percent Indian and seven percent coloured (Department of Education, 2008). The sample profile could unfortunately not be compared with the population statistics for first-year students enrolled at HEIs as these figures were not available – though, because a non-probability sample was drawn, the intention never was to match the sample profile and the population profile.

The distribution between institutions was: 21 percent (249) of the respondents were enrolled at the University of Pretoria (UP); 19 percent (227) at the Tshwane University of Technology, Witbank Campus (TUT); 18 percent (227) at the North-West University (NWU); 16 percent (196) at the University of Johannesburg (UJ); 15 percent (188) at the University of the Free State (UFS); and 11 percent (141) at the University of KwaZulu-Natal (UKZN).

Hypothesis 1

Hypothesis 1 stated that students from various public HEIs differ regarding the usefulness they attach to sources of information when selecting an HEI. The mean values, MANOVA results of the hypothesis test, univariate analysis and post hoc comparisons for the six HEIs are reflected in Table 1.

INFORMATION SOURCE	TUT	UP	UJ	UFS	NWU	UKZN	Univariate analysis
School visits	abdf 3.72	cdi 3.39	ae 3.22	h 3.58	cefg 3.89	bghi 2.91	**0.000**
University publications	abc 4.07	a 3.74	b 3.67	d 3.85	e 3.96	cde 3.47	**0.000**
University website	3.90	3.87	a 3.97	c 4.01	b 4.00	abc 3.53	**0.000**
Campus visits & open days	ab 4.01	cd 3.99	ef 3.98	g 3.71	acegi 4.38	bdfi 3.53	**0.000**
Alumni	a 3.62	b 3.42	c 3.47	d 3.64	bce 3.86	ade 3.23	**0.000**
Parents	a 3.59	3.46	a 3.19	3.49	3.54	3.28	**0.002**
High school teachers	abcd 3.83	a 3.33	b 3.38	c 3.38	d 3.42	3.46	**0.000**
Word-of-mouth	3.76	3.72	3.72	3.65	a 3.91	a 3.47	**0.003**
Advertisements on radio	abc 3.51	ade 2.76	b 2.92	df 3.20	eg 3.28	cfg 2.53	**0.000**
Events on campus	abc 3.24	cd 3.68	ef 3.40	gh 3.55	aegi 4.04	bdfhi 2.72	**0.000**
Advertisements in magazines/ newspapers	ab 3.59	bcd 3.03	e 3.23	cf 3.43	dg 3.47	aefg 2.73	**0.000**
Advertisements on TV	ab 2.95	ac 2.26	2.62	d 2.45	cde 3.05	be 2.16	**0.000**
Wilks' lambda	**F-value** 4.006						
	p-value 0.000						

Table 1: Mean values and MANOVA results for higher education institutions

The results of the Scheffè *post hoc* tests are indicated with a to i. All mean values containing the same letters (for example, a) indicate that the groups differ significantly from one another. All mean values containing different letters (for example, an a or b) indicate that these groups do not differ significantly from one another.

The Wilks' lambda value indicates a significant difference (p=0.000) between HEIs in terms of the usefulness their students attach to the 12 sources of information. The null hypothesis was thus rejected, as there is support for H_1.

The Scheffè *post hoc* tests showed significant differences in the usefulness of the sources of information that students consult when they have to select a public HEI. These differences are highlighted below.

- Of all six institutions, students from the NWU indicated the highest usefulness to school visits, campus visits and open days, alumni, word-of-mouth, events on campus and advertisements on television.
- From among the six institutions, university publications, parents, high school teachers, advertisements on radio and also as magazines and newspapers were found to be most useful by students from TUT, while UFS recorded the highest mean value (4.01) in respect of university websites.
- It is evident that students from UKZN assigned the lowest usefulness to most of the 12 sources, except, that is, for UJ scoring a mean value of 3.19 in respect of parents' usefulness and UP where high school teachers' usefulness scored 3.33.
- The five sources of information most useful to students from TUT were: university publications; campus visits and open days, university websites, high school teachers and word-of-mouth.
- Students from UP indicated campus visits and open days, university websites, university publications, word-of-mouth and events on campus as the five most useful sources.
- Four of the six institutions (TUT and UFS excepted) ranked campus visits and open days as the most useful sources. TUT indicated university publications as the most useful source, while UFS indicated university websites as the most important.
- NWU rated events on campus as the second most useful source (4.04), while the other institutions rated the same source as being less useful.
- School visits ranked between five and nine of the 12 sources for all the institutions, except for NWU that indicated it as significantly more useful than the other institutions. Students from NWU, UFS and TUT rated the usefulness of school visits and university publications higher than the other institutions.
- TUT indicated high school teachers as significantly more important (3.83) than UP, UJ, UFS, and NWU.
- For students from TUT parents were considered to be a more useful source (3.59) than for students from UJ (3.19).
- For students from NWU alumni were significantly more useful (3.86) than for students from UP, UJ and UKZN.
- Students from NWU considered word-of-mouth to be significantly more useful (3.91) than did students from UKZN (3.49).
- Although university publications were useful to all institutions, these were found to be significantly more useful by students from TUT, UFS and NWU.
- Students from UKZN considered university websites to be significantly less useful (3.53) than did students from other institutions.

- Although radio advertisements were useful to a lesser extent to all institutions, students from UKZN had the lowest mean value (2.53) followed by UP (2.76) and UJ (2.92).
- All six institutions ranked advertisements on television as the least useful of all the sources. Although advertisements on television received the lowest rating of all the sources by all the institutions, students from the NWU indicated a significantly higher usefulness (3.05) than did students from UP (2.62), UFS (2.45) and UKZN (2.16).

To enable them to communicate effectively with prospective students, it may be helpful for institutions to determine what their students consider as the most useful sources of information. The ranking assigned by the respondents of the different public HEIs to the sources of information is indicated in Table 2 below.

Rank	TUT	UP	UJ	UFS	NWU	UKZN
1	University publications	Campus visits & open days	Campus visits & open days	University websites	Campus visits & open days	University websites Campus visits & open days
2	Campus visits & open days	University websites	University websites	University publications	Events on campus	University publications Word-of-mouth
3	University websites	University publications	Word-of-mouth	Campus visits & open days	University websites	High school teachers
4	High school teachers	Word-of-mouth	University publications	Word-of-mouth	University publications	Parents
5	Word-of-mouth	Events on campus	Alumni	Alumni	School visits	Alumni
6	School visits	Parents	Events on campus	School visits	Word-of-mouth	School visits
7	Alumni	Alumni	High school teachers	Events on campus	Alumni	Advertise-ments in magazines/ newspapers
8	Parents Advertise-ments in magazines/ newspapers	School visits	Advertise-ments in magazines/ newspapers	Parents	Parents	Events on campus

9	Advertisements on radio	High school teachers	School visits	Advertisements in magazines/ newspapers	Advertisements in magazines/ newspapers	Advertisements on radio
10	Events on campus	Advertisements on radio	Parents	High school teachers	High school teachers	Advertisements on TV
11	Advertisements on TV	Advertisements in magazines/ newspapers	Advertisements on radio	Advertisements on radio	Advertisements on radio	
12		Advertisements on TV	Advertisements on TV	Advertisements on TV	Advertisements on TV	

Please note that the rankings of all institutions do not add up to 12 in that some sources of information share the same ranking.

Table 2: Ranking of the sources of information per institution

It is evident from Table 2 that campus visits and open days, university publications and also websites were considered the most useful sources of information by respondents from all six institutions, except for NWU whose students indicated events on campus as being the second most useful. There are however differences in the lower rankings. Only TUT and UKZN included school teachers in their top five. NWU was also the only institution that had school visits in their top five sources of information. Alumni were in three of the six institutions' top-five lists (UJ, UKZN and UFS). Although university publications were in all the institutions' top-five lists, the rankings differed. University publications were in fourth place on UJ and NWU's list, but first on TUT's list and third on UP's list. Although word-of-mouth was ranked in third or fourth place on the majority of the institutions' lists, it was not on NWU's top-five list. The ranking received by events on campus differed most as it was second on NWU's list, but only 8th on UKZN and 10th on TUT's list.

Tables 1 and 2 lead one to deduce that HEIs in general should steer clear of advertisements on radio, television or in magazines, and rather focus on reaching students via websites, publications, and campus visits and open days. They also need to stay in contact with their alumni, as they provide a useful source of information and ensure that positive information is spread by word of mouth. It is interesting that alumni, overall indicated as a very useful source of information (fifth), ranked only seventh at TUT. Campus events are yet another source that is not very useful to students from TUT. This is however the only institution where students ranked magazine and newspapers advertisements as somewhat useful and these could therefore be used effectively to communicate information to TUT students.

The UJ students in the survey found school teachers, school visits and alumni to be valuable sources of information, but the authorities may want to consider improving their communication strategies with the parents of prospective students in an attempt to improve their usefulness as

a source of information. UP, UFS and NWU should continue with their campus events and open days as an effective means of supplying prospective students with information. They may consider investing in school visits because of the low ranking given to this source. On the other hand, UKZN should make use of parents, school visits and school teachers to distribute information to their students, but they could also investigate how to improve the usefulness of campus events.

To conclude: Hypothesis 1 was supported, thus indicating that students from various public HEIs differ regarding the usefulness they assign to sources of information in selecting an HEI.

Hypothesis 2

The second hypothesis compares two groups - students whose permanent family homes are more than or less than 70 kilometres from the HEI they are attending in terms of their perceptions on the usefulness of campus visits and open days as sources of information.

As was previously mentioned, research findings suggest that there are decided differences between students from the different geographical locations in terms of the sources of information they use (Hamrick & Stage, 2004: 151; Kotler & Fox, 1995: 259; Martin, 1994: 28-36). Some believe that brochures and websites do not seem to provide sufficient information, and students living far from a public HEI want to visit the campus to obtain additional information (Anon, 2006; Evans, 2006).

The majority of respondents' permanent family homes (56%) were 70 kilometres and less from the institution they were attending, which could be attributed to either urbanisation or the fact that students selected an HEI close to their permanent family home to avoid the cost of residence accommodation and travelling. Also, the majority of the respondents (60%) were resident in the province of the institution they were attending.

Hypothesis 2 stated that students who live farther than 70 kilometres from a public HEI attach more value to campus visits and open days as a source of information than do students living in close proximity to a public HEI. The result of the t-test showed a p-value of 0.0676 indicating that the null hypothesis could not be rejected (mean values 3.9 and 4.0) and that there is no support for Hypothesis 2. This suggests that campus visits and open days are useful sources of information for students' use, regardless of how far they live from an HEI. This result contradicts the finding of Evans (2006), but confirms the finding of Coetzee and Liebenberg (2004). From this finding one may deduce that campus visits and open days seem to be very useful to South African students, irrespective of distance from the institution. HEIs could use such days as opportunities to convey institutional information. These days could also be used as opportunities for building relationships with prospective students and their families.

Hypothesis 3

Hypothesis 3 involves the comparison of students with a Grade 12 average of 70 percent and above and those with an average of less than 70 percent in terms of their perceptions on the usefulness of websites as a source of information.

Some studies on sources of information have found that there is a relationship between students' academic record and the use of websites as a source of information (Anon, 2005; Coetzee & Liebenberg, 2004: 70). Karuppan (2001: 138-149) established that students' scholastic aptitude or academic ability influenced their web usage, as students with a higher academic ability made more use of the web. These studies therefore suggest that students with higher academic records tend to use websites more often.

Hypothesis 3 stated that students with Grade 12 averages of 70 percent or higher rely significantly more on public HEIs' websites as a source of information than do students with Grade 12 averages of less than 70 percent. The t-test result (p=0.7595) indicated that the null hypothesis could not be rejected (mean values 3.8 and 3.9). There was thus not enough support for Hypothesis 3, suggesting that the use of websites as a source of information has no bearing on academic standing. While this contradicts the findings of Karuppan (2001), it does confirm the findings of Hoyt and Brown (2003), namely that websites are very important sources of information for students. The usefulness of websites creates excellent opportunities for institutions to make information available quickly and effectively to prospective students, and also then constantly to update such information.

Since a website is an extension of one's brand, institutions must ensure that the website address is visible on all material - from brochures to letterheads. HEIs should also ensure that their websites are visible to search engines, using search phrases that will drive the most traffic to an institution's website.

To conclude: the research results showed support for Hypothesis 1 only, indicating differences in the usefulness students assign to sources of information. Although the findings show significant differences, the practical significance of institutional differences is questionable in that rankings indicate a preference for similar sources of information in the higher rankings found among respondents.

5.   LIMITATIONS OF THE STUDY

The findings of this study cannot be generalised to the South African population, as the composition of the sample only included six public HEIs in South Africa. Furthermore, respondents were selected with the aid of a non-probability convenience sample, and because of constraints in respect of time and money, the study was further also limited to first-year Economic and Management Sciences students.

Future studies could endeavour to include more public HEIs so as to have a more representative sample. As only public HEIs were included in the study, future research could widen the scope and include both private and public HEIs. Such research could also compare what sources of information drive private versus public education decision making. As mentioned earlier, first-year students acted as "substitutes" for Grade 11 and Grade 12 learners in that gaining access to school learners proved to be problematic. Future studies may want to focus on the Grade 11 and Grade 12 learners at the point when decisions on future HEIs need to be made. Because of the growth in new media (such as SMS), it is suggested that future studies investigate new

media technology and its impact on decision making. Mobile-phone technologies, including communicating via SMS or MXit, are prominent among the young adult consumer group (Farris et al., 2002: 91-92). Teens and young adults simultaneously consume multiple media, adding to the challenge for HEIs to understand and harness all the new and proliferating media options available at present (Wyner, 2007: 8).

Despite these limitations, the findings from this study provide guidance to public HEIs on the sources of information used in the institution-selection process and how students from the identified institutions differed on the usefulness of sources of information.

6. CONCLUSION

Higher education institutions should critically analyse their existing marketing, communication and recruitment strategies by identifying their strengths and weaknesses concerning the most useful sources of information. It is clear that information directly from the institution - such as brochures, newsletters, websites, school visits, and campus visits and open days - is the best way to disseminate information to prospective students. HEIs should utilise their most useful sources of information as identified by prospective students to further enhance the effectiveness of their communication strategies.

This research contributes to the body of knowledge on the sources of information used by students in the decision-making process with regard to selecting public HEIs. It is important for public HEIs to understand how prospective students are influenced so that the institution can employ appropriate marketing strategies. The findings of this study provide insight into the sources of information or promotional tools that can be used to communicate with prospective students. Results could be used for effective planning and resource allocation for recruitment, communication and marketing. There is also potential for the information gathered by this study to be used by public HEIs to assist prospective students in making informed decisions.

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