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Abstract

Both higher education institutions and employers need to evaluate the factors that influence students' career goals and career-related decisions because of their importance to and impact on career management and decision making. The objective of this study is to identify the importance of career goals and factors influencing students' career decision making in South Africa. A non-probability sample was selected, with 488 completed responses. The findings indicate that there are significant differences between gender and ethnic groups in terms of the importance of career goals and career influencing factors. The results suggest that high-quality education is needed in conjunction with industry involvement through proper job training and/or internships.

Keywords

role, higher, education, industry, supporting, career, goals, decision, making

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The role of higher education and industry in supporting career goals and decision making

Yolanda Jordaan

Abstract: *Both higher education institutions and employers need to evaluate the factors that influence students' career goals and career-related decisions because of their importance to and impact on career management and decision making. The objective of this study is to identify the importance of career goals and factors influencing students' career decision making in South Africa. A non-probability sample was selected, with 488 completed responses. The findings indicate that there are significant differences between gender and ethnic groups in terms of the importance of career goals and career influencing factors. The results suggest that high-quality education is needed in conjunction with industry involvement through proper job training and/or internships.*

Keywords: *student careers; career decisions; career management; skills training; South Africa*

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The post-apartheid period (after 1994) has seen the beginning of an initiative to get previously disadvantaged South Africans into good jobs so that they can learn new skills and develop their careers. One way they can do this is through Black Economic Empowerment (BEE), which aims to redistribute wealth and provide equal opportunities to previously disadvantaged individuals (*Enterprise*, 2005). However, BEE policies and their application at all costs can damage the South African economy and have been criticized for several reasons. First, some believe BEE is exclusive, because the resulting policies seem to benefit primarily big businesses at the expense of small and medium-sized businesses (*Enterprise*, 2005). Second, if skilled people are compelled to leave their jobs simply because their

skin colour is inappropriate and there are no suitably skilled replacements, everyone suffers (*Citizen*, 2005). The solution for BEE seems to lie in job creation and skills training, as the gap between rich and poor will continue to increase for as long as the skills gap remains (Lubbe, 2008).

Many South African companies complain that they are unable to meet affirmative action quotas because of the shortage of qualified black people (Momberg, 2008). This view is supported by findings from a study published by Deloitte and Touche, which indicates that 81% of companies experience difficulty in recruiting staff because of the skills shortage (Momberg, 2008). More specifically, South Africa is experiencing a shortage of critical skills (in the areas of finance,

accounting, engineering, IT and medicine) which has to be overcome in the next five to ten years (Koorts, 2009). Unfortunately, it appears that the skills in short supply in South Africa are the same as those for which Australian and Canadian companies are head hunting in South Africa (*Financial Mail*, 2008). The movement of skills can, among other things, be attributed to demand in an increasingly globalized labour market (*Financial Mail*, 2008). This might, however, change with the current worldwide economic problems.

Labour experts estimate that at least 400,000 pupils who complete their secondary education join the unemployed in South Africa every year (Naidu, 2008). On the upside, over 700,000 students are enrolled at tertiary education institutions in an attempt to fulfil their dream of one day joining the world of work (Department of Education, 2008). Linked to the skills shortages experienced in South Africa are students' perceptions of their own career paths. Such perceptions indicate whether students consider it important to set career goals and a strategic plan at an early stage, and what factors they perceive as crucial with regard to career goals and choices (Myburgh, 2005). Educators and industry have a responsibility to equip students with the necessary career guidance and awareness to ensure that they have the skills they will need to adapt to the job environment when they leave education. Several research studies have concluded that there is a need for a better understanding of the career-related thinking and actions of individuals already pursuing a career, as well as of undergraduate students who are preparing for their careers (Swanson and Tokar, 1991; Counsell, 1996; Piotrowski and Cox, 2004; Myburgh, 2005).

The aim of this study is to determine which factors are important for students at higher education institutions in formulating career goals and what influences their career choices, with particular reference to differences in gender and ethnic orientation. This is especially relevant in South Africa, often referred to as the 'rainbow' nation because of its diverse cultures and eleven official languages. Furthermore, South Africa's historical and cultural background may shape students' perceptions of their career prospects. The results of this study could provide a better understanding of the career-related thinking and actions of current undergraduate students.

The paper begins by examining career goals and career decisions as related concepts. This is followed by a description of the research aim and methodology, after which the results are presented and discussed. Finally, the paper discusses the managerial implications of the study and concludes by outlining its limitations and making recommendations for future researchers.

Literature background

South Africa seems to be one of the big losers in the global race for skills. Its best technicians, doctors and engineers are recruited by companies all over the world (*Financial Mail*, 2008). Some believe that the best way to close the skills gap is through improved education, to equip students to fill the gaps once they have graduated (Hartley, 2008). This raises the question of how those who are being educated manage their career goals with the aim of contributing to the South African economy in addressing the skills shortage. The literature review that follows provides some background on the role of career goals and career decisions in students' career management processes.

Career goals

Career development theory states that individuals can make a decision only once they know what careers are available to them and have realistic ideas on how to get there (Stead, 2008). This process is made up of incremental stages of progression. First, there is the awareness stage, which starts at about seven years of age and goes through to about 14. The career exploration stage starts around the age of 14 and extends into tertiary studies and even into the first or second job. Globalization, increased competitiveness, growing populations and a larger number of students in tertiary education have increased the importance of setting appropriate career goals (Star, 2008). It is advisable for students to set goals for their career advancement, as this is instrumental in guiding their actions towards the fulfilment of future career-associated needs. A career goal has been described as a future position which an individual aspires to as part of his or her career and serves as a point of reference in the direction of one's career (Duxbury *et al*, 1999). The different needs of individuals are reflected in their attainment of different career goals (Counsell, 1996). A career goal can also clarify thinking, motivate and direct behaviour, and serve as a basis for the development of a career strategy (Greenhaus *et al*, 1995).

Prior research suggests that individuals with specific and challenging career goals perform more successfully and productively than those without such goals (Greenhaus, 1987, in Counsell, 1996; Ribchester and Mitchell, 2004). Findings from a US study determined that more than 80% of the 220,000 incoming college freshmen rated 'finding a better job' as a very important reason for attending college, while only four per cent planned to seek career guidance and advice to help them make more informed decisions (Orndorff, 2002). According to Ribchester and Mitchell (2004), students can be categorized into three groups: those with a clear

awareness of their aspirations; those who are uncertain about their specific goals but have identified general ideas and possibilities; and those who currently have no ideas or aspirations for the future. For the purposes of this study, the assumption is that students have a clear awareness of their objectives in terms of their career goals.

Many international studies have investigated career goals and their role in career planning. In a UK study, Counsell (1996) identified ten career goals with which students associated: wealth; overall job satisfaction; a managerial position; working abroad; working with people; managing their own business; variety in work done; being well-qualified; being good at the job; and challenging work. Counsell's (1996) findings identify 'wealth' as the most frequently mentioned career goal by the students surveyed. However, only 24% of the female respondents mentioned 'wealth', compared to 55% of the males. The career goal most frequently mentioned by females (28%) was 'overall job satisfaction', whereas only 31% of male respondents mentioned this as a career goal. Twenty-two per cent of female respondents identified 'working abroad', compared with six per cent of males, while 16% of male respondents mentioned 'being good at the job', as opposed to only one per cent of the female respondents. The remaining six career goals did not show significant differences between the two gender groups.

In a US study by Piotrowski and Cox (2004), the major motivation for undergraduate business students in terms of career goals was to enhance employment opportunities and income. Piotrowski and Cox suggested that future researchers should examine gender differences with student samples while focusing on the classification of students (that is, first year versus senior students).

From the findings of previous studies, it seems that the setting of career goals is correlated with students' perceptions of their career opportunities. This is probably because it enables them to gain a better understanding of a particular field of study and their specific career path. Furthermore, goal setting is an important aspect of career planning and should ideally begin at an early point in a degree programme in order to discourage the tendency to postpone important decision making processes (Ribchester and Mitchell, 2004).

Career decisions

Some people believe that school graduates do not have the support systems and information required to make informed career decisions. There is evidence that many school graduates decide on a potential career for the wrong reasons – for example, because the career sounds

glamorous, because their friends are going into it, or because they feel forced to live out their parents' dreams (Pauw, 2009). Students are under pressure to make the right decisions when presented with a wide variety of options in higher education institutions. It is therefore important to understand which factors could influence the career choices that will impact on a student's career-related thinking. An early study by Anderson *et al* (1992) indicated that experience, the media and role models mainly influenced US students' career decisions. A study by Counsell (1996) established ten sources of career-related decision influences: information and advice from parents and close relatives; friends and acquaintances; work experiences; courses and subjects studied; tutors; role models; family ties and commitments; economic situation and job market; perceived needs; and perceived skills and abilities. Several other authors agree that relatives, friends and tutors can influence career-related decisions (Clark, in Counsell, 1996; Counsell and Popova, 2000; Sosik *et al*, 2004). Counsell and Popova (2000) identify two additional influences – limited education/learning opportunities and ethnic considerations.

Focusing on Counsell's (1996) ten most influential factors for career-related decisions, 'information and advice from parents and close family' seemed to be the strongest factor. Closer investigation of gender differences indicated that male and female respondents did not differ in the identification of 'information and advice from parents and close family' as the most frequently mentioned career goal. Male and female respondents did, however, differ significantly in the identification of 'tutors', 'role models' and 'perceived skills and abilities' as influences on career-related decisions. For example, 16% of females considered 'tutors' as important, compared to four per cent of males. No significant gender differences were found among the remaining six career-related decision influences.

One of the factors mentioned by Counsell (1996) is the influence of role models in career-related decisions. A role model is someone whose behaviour in a particular role is imitated by others. Prior research by Anderson (in Perrone *et al*, 2002) shows a strong association between career decidedness and the influence of role models. Role models influence career choice not only by direct modelling and imitation, but also by offering support when the individual identifies strongly with the role model. Betz (in Perrone *et al*, 2002) noted the importance of role models and mentors in facilitating positive career development, particularly for females, while Counsell (1996) found that males are more likely than females to be influenced by role

models who are seen as worthy of imitation. These two studies were conducted in the US and UK, respectively.

A key distinction in Counsell's (1999) and Counsell and Popova's (2000) research is that they identified the 'economic and political situation' as the most frequently mentioned influence on career-related decisions, whereas Counsell's 1996 study identified 'information and advice from parents and close family' as the most frequently mentioned influence. Previous research findings from other authors also suggest that people and situational factors play important roles in students' perceptions when a field of study and career choice are considered (Swanson and Tokar, 1991; Ackerman and Gross 2006). People factors are intrinsic and include advice from parents or relatives, influence by friends, school teachers and lecturers, and the influence of career role models. Situational factors, on the other hand, are extrinsic and include the economic situation, the job market, perceived needs, perceived skills and abilities and work experience.

The study discussed in this paper was designed to gain insight into South African students' perceptions regarding career choice. The process of transformation of higher education in South Africa puts pressure on higher education institutions to deliver the much-needed graduates for social and economic development, while simultaneously addressing equity and diversity. One way to achieve this is to gain a better understanding of the student market in terms of the career goals and factors that influence their career decision making.

Research objectives

The above literature review shows that various studies have investigated career goals and the importance of factors influencing students' career decision making (Swanson and Tokar, 1991; Counsell, 1999, Counsell and Popova, 2000; Orndorff, 2002; Sosik *et al.*, 2004; Myburgh, 2005; Ackerman and Gross 2006; Hussain *et al.*, 2007). Findings from several international studies have identified differences between gender groups in career goals and in influential factors in career decision making (Counsell, 1996; Le, 1999; Delmar and Davidsson, 2000; Van Praag, 2003; Piotrowski and Cox, 2004).

When the new government came to power in South Africa in 1994, a new code known as Black Economic Empowerment (BEE) was developed in an attempt to rectify the imbalances of the past. The aim of BEE was to empower the majority of the people by offering them jobs and the necessary skills to compete in the business world. However, the issues surrounding BEE may influence the perceptions of white and black students with regard to their career prospects in South Africa. This possibility led to a decision to investigate ethnic

differences in the study in addition to gender differences. The inclusion of ethnic differences is in line with several international studies which have also investigated cultural differences between groups in relation to career decisions (Greene and Storey, 2004; Williams, 2004; Myburgh, 2005; Agarwala, 2008; Ng *et al.*, 2008). Another motivating factor for investigating ethnic differences is that it has been recognized that a career decision is a blend of individual choices marked by both social and cultural factors (Greene and Saridakis, 2008).

Much research has been conducted in First World countries on students' career perceptions and goals. However, very little has been conducted in Third World countries, including South Africa. In formulating the research hypotheses, due regard was paid to South Africa's richness in cultural groupings, with, as already noted, no fewer than eleven official languages. Accordingly, the following hypotheses were formulated for the study and for application in a South African environment:

- H₁: There is a significant difference between male and female students with regard to the perceived importance of their career goals.
- H₂: There is a significant difference between male and female students with regard to the perceived importance of influences on their career decision making.
- H₃: There is a significant difference between white and black students with regard to the perceived importance of their career goals.
- H₄: There is a significant difference between white and black students with regard to the perceived importance of influences on career decision making.

Methodology

Sampling and data collection

The target population for the study consisted of undergraduate Bachelor of Commerce (BCom) students in the Faculty of Economic and Management Sciences on the main campus of the University of Pretoria in South Africa – one of the largest residential universities in South Africa, with 38,000 contact students and over 1,800 academic programmes. The Faculty of Economic and Management Sciences is the largest faculty at the University of Pretoria and has some 9,000 registered contact students (University of Pretoria, 2008). A non-probability, convenience sample was drawn by distributing questionnaires at lecture venues.

A self-completion questionnaire was used because this is a fast, cost-effective, resourceful and precise means of accessing information about a population. The necessary permission was obtained from the Ethics

Committee, lecturers and respondents, and no incentives were provided for questionnaire completion. A total of 593 questionnaires was distributed, of which 488 were completed and returned, representing a response rate of 82%.

Measurement instrument

The initial questionnaire was pre-tested among 20 undergraduate BCom students. Cooper and Schindler's (2006) collaborative participant pre-testing was used and students indicated an important career goal that had not been included in the original list of goals; this was 'opportunities for promotion'. This career goal was then included as another item in the questionnaire. The questionnaire had three sections. The first of these consisted of an 11-item, five-point Likert-type scale used to measure the level of importance students placed on career goals, ranging from 'very unimportant' (1) to 'very important' (5). The first ten of the scale items were taken from the research by Counsell (1996), and 'opportunities for promotion' was added to these.

The second section of the questionnaire consisted of a 13-item, five-point Likert-type scale which measured the importance students placed on the factors influencing career-related decisions, ranging from 'very unimportant' (1) to 'very important' (5). The career-related decision factor items consisted of the 12 items identified by Counsell's (1996) research and the additional influence identified by Anderson *et al* (1992) – 'information obtained from media'.

The final section contained socio-demographic questions on matters such as gender, home language, ethnic orientation and year of study.

Data analysis

Data analysis consisted of descriptive statistics (mainly the ranking order of career goals and career influences) and hypothesis testing. Multiple analysis of variance (MANOVA) was used to test the hypotheses, as it uses univariate tests to assess the differences between groups collectively rather than individually. The objective of MANOVA is to test for differences in the mean values of several dependent variables (Lattin *et al*, 2003). 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 compromising on power (Hair *et al*, 2006).

Results and discussion

The total realized sample was 488 respondents and the profile included 64% females and 36% males. The ethnic orientations were represented by 75% white and

25% black students. The population statistics for undergraduate BCom students at the University of Pretoria are 54% females and 46% males, with 66% white and 34% black students (Department of Education, 2008). It should be noted, however, that it was not intended that the sample profile should mimic the population profile, since a non-probability sample was drawn. At this point it may be relevant to note that the racial categorization system of black and white used in this study is considered to be a valid basis of differentiation, as these are the classification terms used by Statistics South Africa (StatsSA) to classify race in the country's population censuses. Additional sample statistics include the range of home languages, namely 34% English-speaking, 37% Afrikaans-speaking, 23% African language speakers, with six per cent grouped under 'other language' (such as German, French or Portuguese). With regard to the year-level range: 43% of the students were at first-year level, 15% were at second-year level and 41% were at third-year level.

Importance of career goals

Career goals are considered to be an important starting point in career management. It is advisable for students to set goals to further their careers since it can be assumed that setting career goals plays a positive and pivotal role in guiding students' actions in the fulfilment of future career needs. Table 1 provides the ranking of the different career goals in order of importance, based on the mean values of each career goal. As can be seen, the top four career goals are 'being good at the job', 'overall job satisfaction', 'opportunities for promotion' and 'being well-qualified'. One may feel that these four career goals 'tell a story', in that the respondents indicate that they want high-quality education so that they can be good at their jobs to optimize opportunities for promotion and attain overall job satisfaction. Since 'being good at the job' was the most important goal, it can be surmised that there is a value system in place, according to which students want to excel at their jobs and contribute to the economy – at least so far as the Commerce students in this study are concerned. It is worth noting that wealth as a career goal was the seventh most important factor, whereas, as described above, it was considered the most important career goal among UK students (Counsell, 1996). It may be that wealth is not as important to South African students since the cost of living is lower than it is in the UK. The least important goal was to work abroad in the future, whereas it was the fourth most important career goal of the UK students in Counsell's (1996). This finding is somewhat surprising, and is contrary to many media reports claiming that South Africa is experiencing a brain drain, with many young graduates leaving the

Table 1. Importance ranking of career goals.

Rank	Career goals	Mean	Very unimportant (%)	Unimportant (%)	Neutral (%)	Important (%)	Very important (%)
1	Being good at the job	4.77	0.4	0.2	1.4	18.1	79.8
2	Overall job satisfaction	4.69	1.2	0.4	1.8	22.7	74.2
3	Opportunities for promotion	4.57	0.4	1.4	6.4	24.2	67.6
4	Being well-qualified	4.53	0.6	2.3	6.8	24.4	65.9
5	Challenging work	4.19	0.8	1.6	11.7	49.4	36.5
6	Variety in work done	4.17	0.6	2.3	13.4	46.7	37.0
7	Wealth	4.09	0.8	1.4	13.3	53.3	30.3
8	A managerial position	3.97	3.7	3.1	20.7	47.0	27.9
9	Working with people	3.95	1.2	5.1	25.3	34.3	34.1
10	Managing your own business	3.78	2.7	8.4	28.3	29.4	31.2
11	Working abroad	3.47	1.2	7.8	43.5	27.3	17.7

country to work overseas (Hayward, 2008; Pike, 2008). Another goal that rated very low was 'managing your own business'. Given South Africa's high unemployment rate, this perception does not echo the frequently-expressed expert opinion that young people should become entrepreneurs and, when they cannot find jobs, they should create their own jobs (Evans and Swart, 2009).

Importance of career influences

Influences on career decisions are mainly those factors that have the power to impact on a student's career-related thinking. Table 2 reflects the way the respondents perceived the factors that could influence their careers – the results are presented in ranking order according to the overall mean values. It can be seen that respondents rated 'personal future needs', 'perceived skills and abilities', as well as 'job availability' as the

three most important career influences. This is consistent with the South African government's priorities of creating job opportunities and developing skills to address the skills shortages (Mashalaba, 2007). South Africa's high unemployment rate could also have contributed to the high ranking of job availability and skills among the respondents. It is interesting that Counsell's (1996) research found that the perceived skills and abilities of students were the least important factor influencing their career choice. Also, information and advice from parents and close family were identified by South African students as only the sixth most important influence, whereas these were considered the most important by the UK students in Counsell's research. The lower ranking of parents' influence indicates some independence in career decision making, as students may feel that South Africa is a very different place now from what it was when

Table 2. Importance ranking of career influences on decision making.

Rank	Career influences	Mean	Very unimportant (%)	Unimportant (%)	Neutral (%)	Important (%)	Very important (%)
1	Personal future needs	4.59	0.2	0.2	3.3	33.2	63.1
2	Perceived skills and abilities	4.29	0.6	0.8	8.0	50.2	40.4
3	Job availability	4.23	1.8	3.5	11.1	36.7	46.9
4	Courses and subjects studied	4.10	0.4	2.5	16.6	47.4	33.1
5	Work experiences	4.05	1.2	4.1	16.8	44.1	33.8
6	Information and advice from parents and close family	3.94	0.6	3.1	21.9	50.0	24.4
7	Family ties and commitments	3.58	3.3	7.2	35.0	37.7	16.8
8	Friends and acquaintances	3.47	1.4	9.0	38.4	43.5	7.6
9	Role models	3.47	4.7	8.8	37.7	32.8	16.0
10	Limited education and/or learning opportunity	3.46	4.5	6.6	42.6	31.1	15.2
11	Considerations regarding affirmative action and employment equity opportunities	3.32	11.1	9.0	36.1	24.4	19.3
12	Information obtained from the media	3.31	5.7	10.5	40.0	34.3	9.4
13	Tutors	3.03	10.1	15.2	43.6	23.3	7.8

Table 3: Mean values and MANOVA results for gender groups' career goal perceptions.

Career goals	Male	Female	Univariate analysis
Wealth	4.20	4.03	0.028
Overall job satisfaction	4.59	4.75	0.006
A managerial position	3.97	3.98	0.886
Working abroad	3.51	3.46	0.634
Working with people	3.83	4.01	0.048
Managing your own business	3.84	3.74	0.335
Variety in work done	4.07	4.24	0.027
Being well-qualified	4.36	4.62	0.000
Being good at the job	4.71	4.80	0.058
Challenging work	4.10	4.25	0.051
Opportunities for promotion	4.51	4.60	0.187
Wilks' lambda:			
F-value 3.289			
p-value 0.000			

their parents had to make their career choices. Table 2 also shows that 'personal future needs' is the most important influence for the sample. Students may feel their personal future needs are important, especially in post- *apartheid* South Africa. The career influence that achieved the lowest rating was 'tutors', which may reflect the lack of career counsellors and tutors available in the education system (Kellaway, 2009).

Hypothesis testing

Hypothesis 1

The first hypothesis was related to the possible differences between male and female students with regard to the importance they attached to career goals. Table 3 depicts the MANOVA results for the different gender groups regarding their perceptions of the importance of career goals. The Wilks' lambda value in Table 3 indicates a significant difference ($p=0.000$) between male and female students in terms of the levels of importance they attach to career goals. The null hypothesis can therefore be rejected, as there is support for H_1 . The univariate tests indicated significant differences between gender groups for five of the eleven career goals. The p -values indicate differences in terms of 'wealth', 'overall job satisfaction', 'working with people', 'variety in work done', and 'being well-qualified'. In all significant career goals, females exhibited stronger importance levels, except in the case of wealth as a career goal. This concurs with Counsell's (1996) findings, which indicated that males attached higher importance to wealth than females. The high importance of wealth as a career goal for males may well be linked to the notion that males are the financial

Table 4: Mean values and MANOVA results for gender groups' perceptions of career influences.

Career influences	Male	Female	Univariate analysis
Information and advice from parents and close family	3.92	3.97	0.503
Friends and acquaintances	3.51	3.45	0.423
Work experiences	3.95	4.09	0.102
Courses and subjects studied	3.97	4.17	0.007
Tutors	2.91	3.12	0.037
Role models	3.57	3.40	0.082
Family ties and commitments	3.64	3.55	0.307
Job availability	4.11	4.30	0.029
Personal future needs	4.49	4.65	0.003
Perceived skills and abilities	4.17	4.36	0.005
Limited education and/or learning opportunity	3.27	3.56	0.002
Considerations regarding affirmative action and employment equity opportunities	3.06	3.46	0.000
Information obtained from the media	3.18	3.39	0.028
Wilks' lambda:			
F-value 3.512			
p-value 0.000			

providers for the family, with females believing that they have other roles to fulfil (such as being a mother). The higher response rates exhibited by females overall may, however, be a result of different response styles exhibited by gender groups.

Hypothesis 2

In Hypothesis 2 the differences between male and female students with regard to the importance of influences on their career decision making were considered and the results are depicted in Table 4. The MANOVA test result (Table 4) indicates a significant difference ($p=0.000$) between gender groups in terms of the importance levels of career influences on decision making. The null hypothesis can therefore be rejected, as there is support for H_2 . It is clear from Table 4 that seven factors reflected significant differences between males and females with regard to the importance of specific factors for their career-related decisions. In all cases, female students attached more importance than males to these career influences (as is evident from the higher mean values). As mentioned earlier, this may be the result of typical female response styles (generally being more positive when rating items). These significant different career influences include: 'courses and subjects studied', 'tutors', 'job availability', 'personal future needs', 'perceived skills and abilities', 'limited education and/or learning opportunities', 'considerations regarding affirmative action and employment equity

opportunities', and 'information obtained from the media'. The following five factors did not show any differences: 'information and advice from parents and family', 'friends and acquaintances', 'work experience', 'role models', and 'family ties and commitments'.

Worth noting is the insignificant difference between male and female respondents with regard to the influence of role models on their career choices. Previous research indicates that the importance of role models differs significantly between males and females (Perrone *et al.*, 2002; Counsell, 1996) and also that this 'people factor' has a significant influence on the career choices of students and other individuals (although it was only ranked ninth in this study). A possible reason for the insignificant difference between male and female students in this regard (and the low ranking) could be that students are uncertain about the influence role models might have on their career choices. In line with Counsell's (1996) research, this study found that male and female students did not differ in the level of importance they attached to information and advice from parents and close family members as an influence on their career-related decisions. This probably shows that, irrespective of gender, students attach the same weight to advice from family members.

Hypotheses 3 and 4

For Hypothesis 3, the differences between ethnic groups with regard to the perceived importance of their career goals were investigated. The results did not indicate an overall significant MANOVA result ($p=0.277$) and therefore no follow-up analyses were necessary. The results thus indicate that white and black students do not differ significantly from each other in terms of the importance they attach to career goals. One can conclude that, irrespective of ethnic orientation, career goals are relatively similar for young individuals, whether or not such goals are part of their career management process.

In the fourth hypothesis, possible differences between the two ethnic groups with regard to the perceived importance of influences on their career decision making were examined. The results are presented in Table 5. It can be seen that an overall significant result ($p=0.000$) was obtained. Consequently the null hypothesis is rejected and there is support for H_4 . Univariate analyses revealed that white and black students differed with respect to nine of the thirteen listed career influences. For seven of the nine significantly different results, the black students showed higher importance levels (higher mean values). Thus black students consider 'courses and subjects studied', 'tutors', 'role models', 'job availability', 'personal future needs', 'considerations regarding affirmative

Table 5. Mean values and MANOVA results for ethnic groups' perceptions of career influences.

Career influences	White	Black	Univariate analysis
Information and advice from parents and close family	4.00	3.81	0.031
Friends and acquaintances	3.54	3.22	0.000
Work experiences	4.06	4.05	0.878
Courses and subjects studied	4.03	4.32	0.000
Tutors	2.96	3.31	0.002
Role models	3.40	3.68	0.009
Family ties and commitments	3.57	3.64	0.507
Job availability	4.16	4.52	0.000
Personal future needs	4.55	4.69	0.030
Perceived skills and abilities	4.27	4.38	0.169
Limited education and/or learning opportunity	3.44	3.55	0.285
Considerations regarding affirmative action and employment equity opportunities	3.24	3.64	0.003
Information obtained from the media	3.26	3.49	0.032
Wilks' lambda:			
F-value	4.346		
p-value	0.000		

action and employment equity opportunities' and 'information obtained from the media' as more important career influences than their white counterparts. The most significant influences for black students are affirmative action and employment equity opportunities ($p=0.000$). This can obviously be attributed to the current policy of redressing past inequities, following a racially segregated higher education system before 1994. Consequently, one of the five important policy goals of the National Plan for Higher Education is to achieve equity and diversity in the South African education system (Wangenge-Ouma and Cloete, 2008). On the other hand, white students considered 'information and advice from parents and close family friends' as well as 'friends and acquaintances' to be more important career decision making influences. It is clear that white students see family members and friends as influential sources in their career choices. There may be historical and socioeconomic reasons for this: whites have always had access to tertiary education, and therefore white parents are influencing factors for these young adults when they have to decide on a field of study and career. There is thus a history of educating oneself for a career.

Managerial implications

The research results pertaining to career goals show that students consider the following goals as very important:

'being good at the job', 'deriving job satisfaction', 'availability of promotion opportunities' and 'being well-qualified for the job'. Regarding influences on decision making, the following career influences ranked as very important: 'personal future needs', 'skills and abilities needed for the career', 'job availability' and even the role of 'courses and subjects studied' in preparation for the degree. These findings suggest that stronger links may be necessary between higher education and industry. Higher education has to a great extent provided generic skills, such as research, numeracy and problem solving, but there is also a need for the provision of managerial, leadership and team-working skills development to prepare students for the world of work. To address the skills issue, the South African Ministry of Education released the National Plan for Higher Education in 2001 to increase participation rates for young people and to shift the balance between humanities, business and commerce, and science, engineering and technology. The Ministry also mandated several institutional mergers in an attempt to create comprehensive universities – institutions offering both university and technikon-type programmes under the same umbrella (Department of Education, 2004). This study therefore has implications for certain interest groups that are, or should be, involved in the career decision making processes of higher education students.

One of the main implications relates to the role of education providers to inform and educate students about career goals and career decisions. This should include factors such as ensuring that students are well-qualified for the job by providing relevant courses and subjects. Several institutions have founded bridging or extended programmes in various faculties, such as Natural and Agricultural Science, Education and Engineering, to address national skills shortages and to ensure well-qualified individuals (MacGregor, 2009). However, empowering individuals with information begins at school level with the important role of school counsellors in the career management process. Proper career counselling should include testing learners to get an idea of aptitude, intelligence and interests. Unfortunately, many believe that career counselling services in South African schools are insufficient or even non-existent (Pauw, 2009; Kellaway, 2009). As universities are facing a growing problem in placing graduates in an employment market which is extremely competitive, they may want to consider investing in career development programmes for students as a supplement to student guidance services. Many institutions offer free psychometric testing to enrolled students to assist them in making career decisions (Pauw, 2009). The question is, however, whether these

services are not offered too late in the career management process, and also whether they are properly marketed to students, as many seem unaware that such services are available. In South Africa, with many previously disadvantaged students now in the higher education system, universities may also want to consider offering more support services in the form of tutorials and/or bridging courses to students who are struggling with course work.

There is evidence that career guidance enhances a person's career development and enables him or her to make more effective career-related decisions (Esters, 2007). Green and Saridakis (2008) posit that students' higher education experiences influence individual outcomes and that higher education plays a beneficial role in supporting graduate employment. In general, the number of graduates in the labour market has increased, resulting in an oversupply of applicants for certain graduate placements. This imbalance between supply and demand may signal to higher education institutions that they need to invest resources in programmes that optimize students' job seeking success, while also providing career management skills to graduates. One such career development strategy was implemented at the Victoria University in Melbourne; the results showed that students found it extremely valuable for their job-search skills, their self-awareness and their strategies to achieve their employment goals (Miller and Liciardi, 2003). If higher education institutions encourage students to set career goals, students will be able to take responsibility for their careers, and they thus become more skilled and therefore more useful to industry (Greenhaus *et al*, 1995). Higher education institutions and students will both benefit from well-designed and maintained career management systems. Derek Wilcocks, Services Director for the Middle East and Africa at Dimension Data, believes that talented individuals are still opting for career paths indicative of poor career decision making as a result of the way they are counselled, or not counselled (Webster, 2008). This is where career management programmes can help individuals to obtain a realistic view of their career goals and decisions.

Another implication of the study relates to the involvement of industry in the career decision making processes of students (or future employees). People change and develop over time, and therefore industry would benefit from knowing which goals students set so that they can attract graduates more effectively and retain employees. Students who set career goals are more likely to have productive and satisfying careers (Greenhaus *et al*, 1995). It was found in this study that students identified 'being good at the job' as the most important career goal. Employers, therefore, need to

ensure that they provide graduates with the relevant training and exposure to allow them to 'be good at the job' and thereby enhance their productivity. One way to do this is to offer internship opportunities. Findings from several studies have demonstrated significant early career advantages for students with internship experience, as such experience exposes them to the reality of industry and gives them an indication of what a career in their chosen field of study entails (Gault *et al.*, 2000; Callanan and Benzing, 2004). The value of an internship programme lies in it being designed to give student interns exposure to a variety of independent and collaborative work tasks and to the initiation and completion of projects, and to provide them with an opportunity to network with colleagues in an environment where continual feedback on progress and work performance is provided. One local programme that is proving very successful is the Standard Banking Group Internship programme, in which Standard Bank offers two-month internships at undergraduate second-year level (Vala, 2008). This programme gives students business experience by allowing them to solve real business problems. It is also an opportunity for the students to identify their strengths and weaknesses and to decide whether or not financial services is really the field they want to go into. Should they decide that this is not the business for them, the internship has helped them to become work-ready, but more importantly it has equipped them to make improved career decisions before completing their degrees and entering the workforce.

Businesses that do not want to offer internships can always get involved in career days at schools and/or universities. Typical career days can be entertaining occasions when, for example, Grade 7 learners can come to school dressed in an item of clothing representing a career. Such an event can create an interest in careers and career choices at an early age. Industry can also ensure that information on a variety of careers is available at career centres nationwide. Another option is to actively market those jobs for which there are skills shortages. This can be done in enterprising ways, such as providing career guidance and information through roadshows (Matsaneng, 2009). Such shows can take place during school hours in the school hall, where learners get the chance to speak to representatives of different tertiary institutions and employers. Add to this live music and give-aways, and learners will acquire guidelines on career choices in an interactive way.

To address the BEE issue previously mentioned, high-quality education should be offered as a first stepping stone to a potentially better future for individuals, industry and the country. Secondly, a

review of affirmative action may be needed. There is no doubt that the previously disadvantaged need to be helped up the ladder, but this should not be achieved at the expense of driving experienced and skilled people from their jobs, or the well-educated youth out of the country (*Pretoria News*, 2008). Addressing the country's skills shortages requires a combination of high-quality education, involvement of industry through proper job training, experience and hard work (Lubbe, 2008). Throughout the world there seems to be a shortage of skilled younger workers as older, experienced workers exit their jobs. This problem should be addressed by an adequate education system which transfers knowledge, but also by ensuring that graduates are work-ready and have skills that are useful to employers (Garrun, 2008). In the interim, industry may have to consider making the country more attractive to skilled immigrants, as it may take another decade to produce the much-needed skills (*Pretoria News*, 2008).

Although there is an undeniable national need at higher education institutions to enable the participation of previously disadvantaged students, the institutions have realized that they must also ensure that these participation strategies lead to successful outcomes (Wangenge-Ouma and Cloete, 2008). This realization is reflected in the government initiative to provide subsidies for access programmes in addition to the normal per-student subsidy, as long as the university produces adequate student throughput rates (MacGregor, 2009). The achievement of higher success rates may involve offering well-developed bridging programmes and vocationally-oriented centres to bridge the skills gap. Developing programmes that are accredited in industry will create a training sector within higher education institutions that can offer courses and ongoing training to produce individuals with skills and qualifications recognized by the commercial sector (Webster, 2008).

Knowledge of the factors that influence students' career-related decisions can enable potential employers and higher education institutions to understand students' choice of career path and, as a result, to influence students to follow a particular career path. Understanding students' career goals as well as the factors influencing career choice will give industry insight into how they can be successfully managed as employees. In this study, females placed more emphasis than males on 'overall job satisfaction', 'working with people', 'variety in work' and 'being well-qualified'. This distinction may assist employers in their selection and placement process. By identifying the career goals of potential employees, a firm is better able to assign employees to the correct positions within the organization as well as to develop them effectively for

promotion. Career management systems can be improved if managers take into account the factors that influence students' career goals and career-related decisions. Employers could, for example, make better use of the media to attract black students, because this ethnic group regards 'information obtained from the media' as a more important influencing factor in career choice than do white students. Both higher education institutions and industry can help students to take greater responsibility for their career goals and planning, as today's students have to educate and market themselves continually to thrive in the fiercely competitive job environment (Kuijpers *et al.*, 2006). Higher education institutions could consider graduate career portals for their alumni to help industry to locate experienced talent (Mnqeta, 2008). Such portals could be used to market alumni directly to industry partners, thereby creating a meeting place where talent-seekers and job-hunters could meet.

Limitations and directions for future research

A limitation of this study is that it was conducted at only one tertiary education institution in one faculty, and the results cannot be generalized to the broader population. Also, the non-probability convenience sample lacks control to ensure precision of the sampling method, making it non-representative of the population. Future research should make use of a larger sample of students from more faculties at more higher education institutions, including both part-time and full-time students (employed and unemployed), validating the results by exploring other geographical areas.

The current study represents a snapshot of the current career perceptions and career goals of undergraduate students in South African higher education institutions. A longitudinal study, with tracking of students as employees, could help to establish the validity and consistence of their career goal setting. It is important to note that the assumption was made that students had already identified clear career goals. Furthermore, it may be necessary to extend our understanding of the career progression of graduates. Future studies might investigate the current state of career counselling services available at both school and university levels, as well as the effectiveness of the different services available. Another possible area of investigation is the information sources learners and/or students consult when gathering information on future careers. It might be valuable to determine how much use students make of the Internet as a medium in searching for information on career planning and management. A survey among industry members may also provide valuable insight

into how they believe the skills shortages should be addressed and what their perceptions on career management strategies are.

Future research needs to mine deeper into the impact of Black Economic Empowerment considerations on the career perceptions of South African students, because the reality is that BEE can affect the careers of the nation. It may also be worthwhile to investigate the impact of affirmative action on individuals' career goals, perceptions and management. Further research based on this study could be conducted to determine what differences students perceive in the private-sector and public-sector job markets, as well as what influence government has on their future career choices and goals.

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