

South African Secondary School Career Guidance Counsellors and Mathematics Teachers' Perception of the Accounting Profession

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ABSTRACT *The shortage of accounting professionals is well documented. To address this shortage, greater numbers of school students should be attracted and enrolled in undergraduate accounting programmes. Unfortunately, school students may have misperceptions of the accounting profession. These misperceptions may result in potential entrants to the profession being lost to other professions. Secondary school teachers play an influential role in students' perceptions of future careers. This survey assessed the perceptions of the secondary school career guidance counsellors and mathematics teachers' perceptions of the accounting profession in South Africa in comparison to the medical, engineering and legal professions. The findings suggest that the accounting profession is held in lower esteem than the engineering and medical professions, however, in higher esteem than the legal profession. The findings confirm previous research conducted in the USA, Australasia and Japan. Marketing and recruitment programmes should educate secondary school teachers as to the true nature of the accounting profession.*

Keywords: Accounting profession; secondary school teachers; perceptions; survey; South Africa

Introduction

An international talent shortage survey concluded that employers rated accounting and finance positions amongst the ten most difficult positions to fill within an organisation (Manpower, 2008). In Canada, Australia, Hong Kong, New Zealand, Singapore, Ireland and South Africa accounting and finance positions were in the top five most difficult positions to fill (Manpower, 2008). It is submitted that this international shortage of accountants may be attributed to declining enrolment figures in accounting education programmes (Albrecht and Sack, 2000; Fedoryson and Tyson, 2003; Byrne and Willis, 2003). In a South African context this shortage may be due to the supply of accounting graduates remaining relatively constant over time while the demand for accountants continues to rise, despite the economic slow down (SAICA, 2008). Anecdotal evidence suggests that the shortage of accountants may, *inter alia*, be due to insufficient numbers of secondary school students following a professional accounting career. Misinformation about the accounting profession (Garner and Dombrowski, 1997; Albrecht and Sack, 2000) or the lack of information on what the true nature of an accounting professional's work is (Cory, 1992; Byrne and Willis, 2005) may play a role in dissuading secondary school students from selecting accounting as a professional career (Holt, 1994). Such misinformation may also result in a mismatch in that inappropriate students may select the profession as a career (Byrne and Willis, 2005). Many studies have highlighted the vast difference in the accounting students' expectations of what their first career experiences would be and what those experiences actually were (Dean *et al.*, 1988; Reed and Kratchmann, 1989; Carcello *et al.*, 1991).

Numerous empirical studies have concluded that students' perceptions of the accounting profession are greatly influenced by, *inter alia*, secondary school teachers (Paolillio and Estes, 1982; Gul *et al.*, 1989; Graves *et al.*, 1993; Cohen and Hanno, 1993; Nelson and Deines, 1995; Ahmed *et al.*, 1997; Byrne and Willis, 2005; Myburgh, 2005). It may be these

teachers' misunderstanding of the nature and importance of a professional accounting career that could be contributing to the students' misperceptions of the accounting profession (Albrecht and Sack, 2000). Studies to identify secondary school teachers' perceptions of the accounting profession have been conducted by Hardin *et al.* (2000), Wells and Fieger (2005) and Sugahara *et al.* (2006) in the USA, Australasia and Japan, respectively. These studies found that secondary school teachers hold the accounting profession in relative low esteem in comparison to the engineering, legal and medical professions.

It is submitted that the term 'secondary school teachers' refers to a broad group of teachers encompassing various subject areas and that each of the subject areas teachers may have widely differing views of the world. None of the previous studies have attempted to distinguish between or control for teachers specialising in differing subject areas. Instead these studies relied on the subjective opinion of the school principle to determine which teacher is influential in the students' career choice and should therefore be surveyed. Consequently, any response to these studies would need to be equally broad in nature and/or again rely on the subjectivity of the school principle. This article addressed this concern by narrowing the focus to a smaller subset of secondary school teachers¹. Therefore, the objective of this paper was to investigate the South African secondary school career guidance counsellors and mathematics teachers' perceptions of the accounting profession in relation to their perceptions of the engineering, legal and medical professions. The results of this study are then compared to the findings of the benchmark study in this field of research performed by Hardin *et al.* (2000) and the two subsequent studies performed by Wells and Fieger (2005) and Sugahara *et al.* (2006).

¹ The narrowing of target population, while removing the subjectivity of the school principle, may limit the generalisation of the findings to the broader spectrum of secondary school teachers in South Africa.

Background

The shortage of quality entrants to the accounting profession has elicited much research into what the students' perceptions of the accounting profession are and what factors influence these perceptions and ultimately their career choices.

Several studies have suggested that students generally view accounting as a 'number crunching exercise' (Saemann and Crooker, 1999, Geiger and Ogilby, 2000 and Mladenovic, 2000) which is definite, precise and compliance driven (Byrne and Willis, 2005). This perception may be as result of the manner in which stereotypes bias how an individual perceives another person or group (Cory, 1992, p.1). DeCoster and Rhode (1971, p. 661) made use of the following adjectives when describing the stereotypical accountant: cold, aloof, unsociable, submissive, shallow, weak, passive and lacking sensitivity. Bougen (1994) acknowledged that the accounting professions' move away from bookkeeping toward professionalism has not been supported by an associated updating of the stereotypical boring, dull and unimaginative bookkeeper. Students may therefore choose their occupations based partly on society's stereotypical representation of that career (DeCoster, 1971, p.47).

Cohen and Hanno (1993) and Felton *et al.*, (1995) suggested that students' perceptions, and ultimately their career choices, can also be influenced by subjective norms, being the social pressure from a person related to the student, such as a parent, relative, friend, teacher, administrator or counsellor (Palillo and Estes, 1982, Gul *et al.*, 1989 and 1992, Ahmed *et al.*, 1997 and Myburgh, 2005). In addition to these subjective norms Byrne and Willis (2005) added that students' key sources of information about the profession may also include the study of accounting at secondary school and the factual media.

In order to correct the misperceptions that students may have of the accounting profession, and on which they may base their career choice, they need to be given more accurate and extensive information about the true nature of the profession (Cory, 1992, p. 22). As several

studies have suggested that students place significant weight on the opinions of referents, Cohen and Hanno (1993, p. 235) advised that the communication of accurate information about the accounting profession must be extended beyond the students and should include other influential persons in a students' career choice, such as their secondary school teachers.

Studies have therefore been conducted internationally to determine the secondary school teachers' perception of the accounting profession. Hardin *et al.* (2000) and Wells and Fieger (2005) conducted surveys of secondary school teachers' perceptions of the accounting profession in the USA and Australasia, respectively. Both studies found that the school teachers held the accounting profession in relatively low esteem in comparison to the engineering, legal and medical professions. These studies were replicated in Japan by Sugahara *et al.* (2006) who again found the accounting profession to be held in lower esteem than the legal and medical professions. However, Sugahara *et al.* (2006) did establish that the accounting profession was held in higher esteem than the engineering profession. The authors attributed this variance in their findings, from those of the previous studies, to the fact that in Japan engineering is not seen as a certified profession, unlike the accounting, legal and medical professions.

Methodology

This empirical research project was a descriptive, cross-sectional study of South African secondary school career guidance counsellors and mathematics teachers' perceptions of the accounting profession in comparison to the engineering, legal and medical professions. Data was collected by employing a structured, self-administered questionnaire. To avoid creating an association with a specific profession, which could lead to response bias, the covering letter to the questionnaire did not contain any departmental information indicating that the survey originated in an accounting department rather than an engineering, legal or medical department.

Target population and sample

As is noted by Sugahara *et al.* (2006, p.409) it is important that the teachers surveyed have a reasonable opportunity of influencing a secondary school students' career decision. Due to the nature of their work, career-guidance counsellors should be in the most favourable position to exert an influence in a school students' career choice. South Africa is, however, faced with a critical shortage of qualified teachers, including career-guidance counsellors, many of whom are pressed into teaching and administrative functions rather than counselling (Naicker, 1994). The absence of career-guidance counsellors in many schools necessitated the identification of an alternative respondent group. Successful completion of mathematics at a secondary school level is a common prerequisite for entrance to the academic programmes of the professions considered in this study, namely accounting, engineering, law and medicine. Mathematics teachers should therefore have the opportunity of influencing school students', who qualify for entry to professional programmes, career decision. As a result the target population for this study comprised of career-guidance counsellors or in their absence mathematics teachers at South African secondary schools.

A senior certificate with endorsement is a legal requirement for first degree study in South Africa. A senior certificate with endorsement entails passing at least five subjects, of which four must be on the higher grade, with an aggregate of at least 40%. Only 16% of candidates who wrote the senior certificate examination during 2006 passed with endorsement (News24, 2006). Many of South Africa's, approximately 5,700 secondary schools (Department of Education, 2006), are therefore not equipping their students with the educational background necessary to obtain a senior certificate with endorsement and by implication are not involved in the training of future professionals. To identify a more representative target population of schools delivering students with senior certificate endorsement, a list of the primary feeder schools was obtained from the largest residential university in South Africa (the University of Pretoria). This list contains 200 schools that are representative of those schools with a history

of providing strong academic candidates and are representative of South Africa's cultural diversity.

To summarise, the questionnaire was circulated to the career-guidance counsellors or in their absence mathematics teachers teaching at the 200 feeder schools of the University of Pretoria.

Response rate

Despite a two follow-ups via e-mail, fax and telephone only 78 replies were received from the 200 schools, equating to a response rate of 39%. Although comparing favourably with the studies of Hardin *et al.* (2000), 26% ($n = 128$), Wells and Fieger (2005), 26% ($n = 36$ in New Zealand and $n = 67$ in Australia) and Sugahara *et al.* (2006), 38% ($n = 87$), non-response bias is a limitation and should be allowed for when interpreting the results.

Research instrument

This study replicated the studies of Hardin *et al.* (2000), Wells and Fieger (2005) and Sugahara *et al.* (2006). Accordingly their research instrument was replicated². The questionnaire consisted of 24 professional attributes of a profession. These attributes were adapted by Hardin *et al.* (2000) from previous studies carried out by Paolillio and Estes (1982), Lieberman and Marquette (1986), Graves *et al.*, (1993) and Nelson & Denies (1995). The order in which the attributes were listed in the questionnaire was identical to that of the questionnaire designed by Hardin *et al.* (2000).

² Sugahara *et al.* (2006) adopted a four point Likert scale following difficulty experienced during their pilot study with the 100 point scale of Hardin *et al.* (2000). This revised scale required respondents to indicate on a scale of 1 – 4 whether they strongly agree, agree, disagree or strongly disagree that each of the four professions, namely accounting, engineering, law and medicine, comply with each of the 24 professional attributes. This revised scale was adopted for use in this study.

Results

Demographics

The respondents were South African secondary schools teachers, 83% of whom were mathematics teachers and 17% career-guidance counsellors. Consistent with reports that at least two thirds of the teachers in South Africa are female (Snyman, 2006), 68% ($n = 53$) of the respondents were female. The respondents were mostly well qualified and experienced educators, with 85% ($n = 66$) holding at least a bachelors degree and 92% ($n = 72$) having more than five years teaching experience. The demographic profile of the respondents is illustrated in Table 1.

Table 1. Demographic profile of respondents

| | | Total ($n = 78$) | |
|------------------------|--------------------|--------------------|------------|
| | | Frequency | Percentage |
| Teacher: | Career Guidance | 13 | 17 |
| | Mathematics | 65 | 83 |
| Gender: | Male | 25 | 32 |
| | Female | 53 | 68 |
| Highest qualification: | Non degree | 12 | 15 |
| | Bachelors | 56 | 72 |
| | Masters | 10 | 13 |
| Experience: | Less than 5 years | 6 | 8 |
| | 5 – 20 years | 27 | 34 |
| | 21 – 30 years | 40 | 51 |
| | More than 30 years | 5 | 7 |

Results of ANOVA test on each attribute

To identify statistically significant differences or similarities between the professions, the results from the 24 attributes were analysed using a one-way ANOVA. The results are illustrated in Table 2. The four professions were the independent variables and the responses to each of the 24 attributes of a profession were the dependant variables. Significant differences between the mean responses were identified by using Tukeys' Honest Significant Difference post-hoc comparison.

Table 2. The results of ANOVA test on each attribute ($n=78$)

| Attribute | Acc | Eng | Law | Med | F-test | P-value |
|--|------|------|------|------|--------|---------|
| Accounting differs from engineering, law and medicine | | | | | | |
| Is an interesting work | 2.27 | 1.48 | 1.81 | 1.41 | 29.076 | 0.000 |
| Allows interaction with others | 2.27 | 1.97 | 1.41 | 1.26 | 50.648 | 0.000 |
| Requires excellent communication skills | 2.47 | 2.09 | 1.21 | 1.55 | 56.055 | 0.000 |
| Has difficult entry requirements | 2.17 | 1.67 | 2.74 | 1.21 | 83.531 | 0.000 |
| Accounting differs from engineering and medicine | | | | | | |
| Contributes to society | 1.68 | 1.41 | 1.72 | 1.17 | 17.984 | 0.000 |
| Is a challenging work | 1.80 | 1.21 | 1.80 | 1.30 | 20.707 | 0.000 |
| Provides job satisfaction | 1.97 | 1.55 | 1.96 | 1.53 | 13.035 | 0.000 |
| Accounting differs from law and medicine | | | | | | |
| Requires excellent quantitative skills | 1.55 | 1.41 | 2.35 | 2.00 | 12.745 | 0.000 |
| Accounting differs from engineering and law | | | | | | |
| Has excellent advancement potential for women | 1.76 | 2.12 | 2.10 | 1.78 | 8.223 | 0.000 |
| Accounting differs from medicine | | | | | | |
| Has social status | 1.54 | 1.41 | 1.54 | 1.15 | 10.152 | 0.000 |
| Has a level of ethics | 1.69 | 1.67 | 1.83 | 1.19 | 16.279 | 0.000 |
| Involves long working hours | 1.70 | 1.68 | 1.71 | 1.32 | 7.654 | 0.000 |
| Is a glamorous position | 2.15 | 2.01 | 2.00 | 1.72 | 4.580 | 0.004 |
| Has personal liability for malpractice | 1.91 | 1.99 | 1.73 | 1.62 | 4.925 | 0.002 |
| Accounting differs from law | | | | | | |
| Has excellent job opportunities | 1.58 | 1.63 | 2.21 | 1.56 | 20.640 | 0.000 |
| Is an excellent career for honours students | 1.97 | 1.78 | 2.26 | 1.92 | 6.622 | 0.000 |
| Offers job security | 1.78 | 1.81 | 2.05 | 1.68 | 4.577 | 0.004 |
| Has excellent advancement potential | 1.72 | 1.72 | 2.17 | 1.80 | 11.162 | 0.000 |
| Accounting differs from engineering | | | | | | |
| Requires excellent problem-solving skills | 1.67 | 1.19 | 1.78 | 1.59 | 12.998 | 0.000 |
| Is a male-dominated profession | 2.50 | 1.76 | 2.46 | 2.44 | 16.659 | 0.000 |
| Accounting similar to engineering, law and medicine | | | | | | |
| Provides quality family life | 2.30 | 2.24 | 2.21 | 2.39 | 0.884 | 0.450 |
| Provides quality lifestyle | 1.65 | 1.59 | 1.69 | 1.51 | 1.136 | 0.335 |
| Is a powerful position | 1.75 | 1.75 | 1.63 | 1.55 | 1.730 | 0.161 |
| Has earnings potential | 1.49 | 1.41 | 1.53 | 1.39 | 1.260 | 0.288 |

1 = Strongly agree; 2 = Agree; 3 = Disagree; 4 = Strongly disagree

Significant differences determined using Tukeys' Honest Significant Difference post-hoc comparison at the $p < 0.05$ confidence level.

Accounting differs from engineering, law and medicine

The respondents perceived the accounting profession as being the least interesting of the four professions, allowing the least opportunity for interaction with other people and requiring less communication skills than the other professions. These perceptions immediately confirm that

the stereotypical accountant, described by Byrne and Willis (2005, p. 369) as being ‘extraordinarily deficient in social skills’, is very much in existence in South Africa.

As outlined in Table 3, the entry requirements for the accounting profession are significantly more onerous than those of the legal profession but are not as onerous as those for the medical and engineering professions. This situation was accurately reflected by the respondents.

Table 3. Summary of current minimum entrance requirements

| Subject | Accounting | Engineering | Law | Medicine |
|------------------------|--------------------------|--|--------------------------|--|
| Languages [@] | 50% - 59% | 60% - 69% | 50% - 59% | 60% - 69% |
| Mathematics | 60% – 69% | 70% – 79% | 40% – 49% [#] | 60% – 69% |
| APS [*] | 28 | 30 | 24 | Selection process |
| Life orientation | 50% – 59% | 60% – 69% | 50% – 59% | 50% - 59% |
| Other | Any three other subjects | 60% – 69% in physical science and two other subjects | Any three other subjects | 60% – 69% in physical science and two other subjects |

Based on the entrance requirements of the largest residential university in South Africa (the University of Pretoria)

[@] - English as first or second language and another language

[#] - Law requires either mathematics or mathematical literacy. The other profession do not accept mathematical literacy.

^{*} - Admission Point Scores (APS) is a calculation based on the candidates’ achievement in six 20 credit subjects on a scale of 1 – 7. The highest APS that can be achieved is 42.

Accounting differs from engineering and medicine

The respondents suggested that the accounting profession contributes significantly less to society and is significantly less challenging than the engineering and medical professions. Of major concern when considering school students career decisions is the perception that accounting provides less job satisfaction than the engineering and medical professions.

Accounting differs from law and medicine

The accounting and engineering professions were seen as requiring significantly better quantitative skills than the legal and medical professions. In reality the entrance requirements for each profession (Table 3) suggest that both the medical and accounting professions have similar mathematical requirements, while both are less than those required for the engineering profession.

Accounting differs from engineering and law

The respondents suggested that the female members of the accounting profession have greater advancement potential than the female members of the other professions considered, although the difference between the accounting and medical professions is not statistically significant. In a world fighting for the removal of various forms of discrimination this impression of the profession is extremely positive.

Accounting differs from medicine

Accounting is perceived as having significantly less social status, a worse level of ethics and less personal liability for malpractice than the medical profession. These results give cause for concern for the accounting profession, particularly with respect to the high ethical dimension it seeks to portray. The accounting profession is also seen as being less glamorous than the medical profession. The perception that the accounting profession requires shorter working hours than the medical profession may be seen in a positive light. The current Generation Y places significant importance on achieving a well balanced work and home lifestyle (Trunk, 2007) and may therefore value a career which involves shorter working hours.

Accounting differs from law

Encouragingly the respondents suggested that the accounting profession offers significantly better job opportunities and advancement potential than the legal profession. A further positive indicator is that the accounting profession is seen to offer an excellent career for honours students, on a par with the engineering and medical professions and significantly better than the legal profession.

Accounting differs from engineering

Another positive attribute for the accounting profession is the fact that the respondents suggested that the profession was no more male-dominated than the legal and medical professions and significantly less male-dominated than the engineering profession. The respondents appear to be of the opinion that the engineering profession requires significantly

better problem-solving skills than the accounting, legal and medical professions require similar problem-solving skills.

Accounting similar to engineering, law and medicine

The respondents suggested that all four professions provide a quality family life and lifestyle, are powerful positions and have earnings potential.

Accounting in comparison to engineering, law and medicine

A review of Table 2 and its related discussion suggests that the South African respondents hold the accounting profession in lower esteem than the medical and engineering professions, yet higher esteem than the legal profession. This conclusion may reflect, *inter alia*, the difficulty being experienced with the racial reform of the judiciary (Cornellissen, 2002; Sapa, 2005) and/or the success of the marketing programme of the South African Institute of Chartered Accountants (SAICA). This marketing programme has been aimed at highlighting the prestige of the Chartered Accountant designation in South Africa.

Demographic differences

A series of two-way ANOVAs were used to identify if there were any significant demographic differences in the responses. The four professions, along with the demographic data, represented the independent variables and the attributes of each profession represented the dependant variables. The results of this analysis are illustrated in tables 4 and 5. Table 4 illustrates the attribute for which a significant interaction between the independent variables was identified and Table 5 indicates the statistically significant demographic differences for which no interaction could be identified.

The only significant interaction identified between the independent variables was the career-guidance counsellors' and mathematics teachers' perceptions of whether the professions require excellent problem-solving skills. Further analysis, by means of Tukeys' Honest Significant Difference post-hoc comparison, suggested that while the career guidance counsellors displayed no statistical difference between their perception of the problem-solving

skills of the four professions, mathematics teachers were of the opinion that the engineering profession required significantly better problem-solving skills than the other three professions.

Table 4. The results of ANOVA test on the attribute displaying significant interaction

| Attribute | Acc | Eng | Law | Med | F-test | P-value |
|--|------|------|------|------|--------|---------|
| All respondents (n = 78) | | | | | | |
| Accounting differs from engineering | | | | | | |
| Requires excellent problem-solving skills | 1.67 | 1.19 | 1.78 | 1.59 | 12.998 | 0.000 |
| Mathematics teachers (n = 65) | | | | | | |
| Accounting differs from engineering | | | | | | |
| Requires excellent problem-solving skills | 1.67 | 1.20 | 1.92 | 1.60 | 15.170 | 0.000 |
| Career guidance counsellors (n = 13) | | | | | | |
| Accounting similar to law, engineering and medicine | | | | | | |
| Requires excellent problem-solving skills | 1.67 | 1.15 | 1.08 | 1.54 | 2.974 | 0.041 |

1 = Strongly agree; 2 = Agree; 3 = Disagree; 4 = Strongly disagree

Significant differences determined using Tukeys' Honest Significant Difference post hoc comparison at the $p < 0.05$ confidence level.

In addition to the demographic difference for which a significant interaction was identified (table 4) there were a number of other statistically significant demographic differences, for which no significant interactions were identified (see Table 5).

The career guidance counsellors agreed more strongly than their mathematics colleagues, that twelve of the professional attributes were applicable to the four professions. The mathematics teachers agreed more strongly that the four professions are male-dominated. The male respondents agreed more strongly than their female colleagues that the attributes are applicable to the four professions. The female respondents, however, agreed more strongly that the professions have a level of ethics. The respondents holding non-degree qualifications agreed more strongly that the four professions display a level of ethics, are interesting work, provide job satisfaction and have long working hours. Teachers holding a Masters degree agreed most strongly that the four professions display the attributes of glamour, quality lifestyles and are male-dominated. The most experienced respondents were least agreeable

that the four professions display levels of ethics, contribute to society and are interesting jobs.

The most inexperienced respondents were less inclined to agree that the professions provide a quality lifestyle.

Table 5. The results of ANOVA test on demographic variables indicating statistically significant differences with no interaction

| Mean responses per group of teachers (n = 78) | | | | |
|--|-------------------------|--------------------------------|--------|---------|
| Attribute | Mathematics (n = 65) | Career Guidance (n = 13) | F-test | P-value |
| Has a level of ethics | 1.63 | 1.40 | 6.292 | 0.013 |
| Is a challenging work | 1.55 | 1.35 | 5.202 | 0.023 |
| Provides job satisfaction | 1.78 | 1.60 | 4.217 | 0.041 |
| Provides quality lifestyle | 1.66 | 1.38 | 7.787 | 0.006 |
| Involves long working hours | 1.63 | 1.44 | 4.405 | 0.037 |
| Is a powerful position | 1.70 | 1.48 | 5.467 | 0.020 |
| Is a glamorous position | 2.01 | 1.75 | 5.451 | 0.020 |
| Offers job security | 1.87 | 1.63 | 5.730 | 0.017 |
| Has personal liability for malpractice | 1.85 | 1.63 | 4.338 | 0.038 |
| Requires excellent communication skills | 1.87 | 1.65 | 4.446 | 0.036 |
| Requires excellent problem-solving skills | 1.60 | 1.35 | 7.095 | 0.008 |
| Has excellent job opportunities | 1.79 | 1.54 | 7.357 | 0.007 |
| Is a male-dominated profession | 2.26 | 2.40 | 7.110 | 0.008 |

1 = Strongly agree; 2 = Agree; 3 = Disagree; 4 = Strongly disagree
Significant differences determined at the $p < 0.05$ confidence level.

| Mean responses per gender (n = 78) | | | | |
|---|------------------|--------------------|--------|---------|
| Attribute | Male (n = 25) | Female (n = 53) | F-test | P-value |
| Has a level of ethics | 1.66 | 1.46 | 6.559 | 0.011 |
| Provides job satisfaction | 1.61 | 1.82 | 7.469 | 0.007 |
| Provides quality family life | 2.15 | 2.34 | 4.918 | 0.027 |
| Involves long working hours | 1.48 | 1.65 | 5.664 | 0.018 |
| Has personal liability for malpractice | 1.59 | 1.91 | 16.254 | 0.000 |
| Has excellent problem-solving skills | 1.45 | 1.61 | 3.910 | 0.049 |
| Has excellent job opportunities | 1.59 | 1.82 | 8.453 | 0.004 |
| Has excellent advancement potential for women | 1.80 | 2.01 | 7.411 | 0.007 |

1 = Strongly agree; 2 = Agree; 3 = Disagree; 4 = Strongly disagree
Significant differences determined at the $p < 0.05$ confidence level.

| Mean responses per highest qualification (n = 78) | | | | | |
|--|------------------------|-----------------------|---------------------|--------|---------|
| Attribute | Non-degree (n = 12) | Bachelors (n = 56) | Masters (n = 10) | F-test | P-value |
| Has a level of ethics | 1.31 | 1.66 | 1.58 | 6.108 | 0.003 |
| Is an interesting work | 1.46 | 1.80 | 1.73 | 5.209 | 0.006 |
| Provides job satisfaction | 1.58 | 1.82 | 1.58 | 4.711 | 0.010 |
| Provides quality lifestyle | 1.46 | 1.69 | 1.35 | 6.473 | 0.002 |
| Has long working hours | 1.40 | 1.64 | 1.63 | 3.300 | 0.038 |
| Is a glamorous position | 1.77 | 2.08 | 1.63 | 8.474 | 0.000 |
| Is a male-dominated position | 2.03 | 2.35 | 1.88 | 6.109 | 0.003 |

1 = Strongly agree; 2 = Agree; 3 = Disagree; 4 = Strongly disagree
 Significant differences determined at the $p < 0.05$ confidence level.

| Mean responses per teaching experience (n = 78) | | | | | | |
|--|-------------------|-----------------------|----------------------|-------------------|--------|-------------|
| | < 5 yr (n = 6) | 5 – 20 yr (n = 27) | 21 -30yr (n = 40) | > 30yr (n = 5) | F-test | P- value |
| Has level of ethics | 1.42 | 1.60 | 1.55 | 2.15 | 6.195 | 0.000 |
| Contributes to society | 1.46 | 1.42 | 1.50 | 1.85 | 3.343 | 0.020 |
| Interesting work | 1.79 | 1.79 | 1.65 | 2.10 | 3.176 | 0.024 |
| Challenging work | 1.54 | 1.66 | 1.41 | 1.65 | 3.487 | 0.016 |
| Provides quality lifestyle | 2.04 | 1.54 | 1.59 | 1.70 | 4.253 | 0.006 |

1 = Strongly agree; 2 = Agree; 3 = Disagree; 4 = Strongly disagree
 Significant differences determined at the $p < 0.05$ confidence level.

To determine whether the demographic profiles had any effect on the teachers' perceptions of the various professions, other than the interaction identified (Table 4), an ANCOVA was performed to measure the effect on each attribute of the significant demographic differences. The results of the ANCOVA made either no change or only slight changes to the F-test and there were no changes in the levels of significance reported in Table 2.

Comparison with similar international studies

A comparative analysis of the findings of this study and of those preceding it by Hardin *et al.* (2000), Wells and Fieger (2005) and Sugahara *et al.* (2006) was conducted. Firstly, a comparative analysis based on the mean scores was performed to compare the professional attributes applicability to the accounting, engineering, legal and medical professions across the various countries. Secondly, an analysis based on the results of the ANOVA results in the four studies was performed to identify any commonality in the statistically significant differences between the professions across the various countries.

Comparison based on mean scores

Table 6 illustrates the ranking, based purely on mean scores, of an attributes applicability, in the opinion of the teachers surveyed, to the accounting profession in comparison to the other professions in the Republic of South Africa (RSA), Japan, Australia (Aus), New Zealand

(NZ) and the USA, respectively. In South Africa only 6 of 24 professional attributes were least applicable to the accounting profession (represented on Table 6 by a ‘d’). This observation confirms the conclusion that the accounting profession in South Africa is held in higher esteem than the legal profession (Table 2).

Table 6. Ranking of the accounting professions’ attributes in comparison to the other professions, in the different countries, **based purely on mean scores**

| Attribute | RSA | Japan ¹ | Aus ² | NZ ² | USA ³ |
|---|-----|--------------------|------------------|-----------------|------------------|
| Has excellent advancement potential for women | a | a | d | d | d |
| Has excellent advancement potential | a | d | d | d | b |
| Requires excellent quantitative skills | b | a | a | b | b |
| Has excellent job opportunities | b | b | d | c | c |
| Offers job security | b | c | c | d | c |
| Has difficult entry requirements | c | c | d | d | d |
| Contributes to society | c | d | c | d | c |
| Is a challenging work | c | d | d | d | d |
| Has social status | c | c | d | d | d |
| Has a level of ethics | c | c | c | c | c |
| Involves long working hours | c | d | d | d | d |
| Has personal liability for malpractice | c | c | d | d | d |
| Is an excellent career for honours students | c | c | d | d | d |
| Requires excellent problem-solving skills | c | d | d | d | d |
| Provides quality family life | c | a | b | b | b |
| Provides quality lifestyle | c | b | c | c | d |
| Is a powerful position | c | c | d | d | d |
| Has earnings potential | c | c | d | d | d |
| Is an interesting work | d | d | d | d | d |
| Allows interaction with others | d | c | d | d | d |
| Requires excellent communication skills | d | c | d | d | d |
| Provides job satisfaction | d | d | d | d | d |
| Is a glamorous position | d | d | d | d | d |
| Is a male-dominated profession | d | d | b | d | d |

Based on the mean scores of the respondents’ strength of agreement, the attribute rated as:
a – most applicable to the accounting profession in comparison to the other professions.
b – second most applicable to the accounting profession after one of the other professions.
c – more applicable to the accounting profession than one other profession but less than two other professions.
d – least applicable to the accounting profession in comparison to the other professions.
1 – Sugahara *et al.* (2006)
2 – Wells and Fieger (2005)
3 – Hardin *et al.* (2000)

A further review of Table 6 reveals that in Japan only 8 of the 24 professional attributes were least applicable to the accounting profession. In this instance the authors concluded that the respondents held the accounting profession in lower esteem than the medical and legal professions, but higher esteem than the engineering profession (Sugahara *et al.*, 2006). These authors attributed the engineering professions’ less favourable position in Japan to the fact

that it is not a certified profession with professional examinations or licences. In this regard, South Africa is similar to the Australasian and North American environment where all the relevant professions are certified. Hardin *et al.* (2000) and Wells and Fieger (2005) found that their respective respondents in the USA and Australasia held the accounting profession in relatively low esteem in comparison to the other professions. Their conclusions are evident in Table 6 where the vast majority of attributes were least applicable to the accounting profession.

Comparison based on ANOVA results

A comparative analysis between the countries was performed based on the classification of the 24 attributes into eight categories per country based on the ANOVA results in the current study, and the studies of Hardin *et al.* (2000), Wells and Fieger (2005) and Sugahara *et al.* (2006). These categories represent the statistically significant differences or similarities between accounting and the other professions in a particular country. The results of this analysis are illustrated in Table 7. Where there was general agreement across the countries (at least three of the five agree) that an attributes relevance to the accounting profession was significantly different from or similar to the other professions that attribute is highlighted in darker shading in Table 7. Should there be lesser agreement across the countries (two of the five agree) this attribute is highlighted in lighter shading.

Table 7. Ranking of the accounting professions' attributes in comparison to the other professions, in the different countries, **based on statistically different mean scores**

| Attribute | RSA | Japan ¹ | Aus ² | NZ ² | USA ³ |
|---|-----|--------------------|------------------|-----------------|------------------|
| Is an interesting work | a | e | a | a | a |
| Allows interaction with others | a | a | c | a | a |
| Requires excellent communication skills | a | a | a | c | a |
| Has difficult entry requirements | a | a | a | a | a |
| Contributes to society | b | a | b | b | b |
| Is a challenging work | b | a | a | a | a |
| Provides job satisfaction | b | e | b | a | b |
| Requires excellent quantitative skills | c | c | c | c | c |
| Has excellent advancement potential for women | d | g | h | e | h |
| Has social status | e | a | a | a | a |
| Has a level of ethics | e | a | b | e | c |
| Involves long working hours | e | a | e | c | c |

| | | | | | |
|---|---|---|---|---|---|
| Is a glamorous position | e | e | c | a | a |
| Has personal liability for malpractice | e | b | a | e | c |
| Has excellent job opportunities | f | e | b | e | b |
| Is an excellent career for honours students | f | c | a | a | a |
| Has excellent advancement potential | f | h | h | h | b |
| Offers job security | f | g | e | e | e |
| Requires excellent problem-solving skills | g | a | g | a | a |
| Is a male-dominated profession | g | g | g | d | a |
| Provides quality family life | h | c | e | c | c |
| Provides quality lifestyle | h | h | h | h | a |
| Is a powerful position | h | a | c | c | a |
| Has earnings potential | h | a | c | c | a |

a – accounting differs from law, engineering and medicine at $p < 0.05$.

b – accounting differs from engineering and medicine at $p < 0.05$.

c – accounting differs from law and medicine at $p < 0.05$.

d – accounting differs from law and engineering at $p < 0.05$.

e – accounting differs from medicine at $p < 0.05$.

f – accounting differs from law at $p < 0.05$.

g – accounting differs from engineering at $p < 0.05$.

h – accounting similar to law, engineering and medicine at $p < 0.05$.

Darker shaded areas represent attributes where general agreement across countries is evident (at least 3 of 5 agree).

Lighter shaded areas represent attributes where lesser agreement across countries is evident (2 of 5 agree).

1 – Sugahara *et al.* (2006)

2 – Wells and Fieger (2005)

3 – Hardin *et al.* (2000)

General agreement across countries

The analysis of the four studies ANOVA results revealed several areas of general agreement across the various countries. The American, Australasian and South African respondents suggested that the accounting profession was the least interesting of the professions and contributed the least to society. Further, with the exception of Australian respondents (Wells and Fieger, 2005), the secondary school teachers suggested that the accounting profession lacks the interaction of the other professions and accordingly does not require good communication skills. As such, it appears as if the stereotype of the boring accountant, who does not communicate or interact with others (Bougen, 1994; Cory, 1992) is still very much in existence internationally.

With the exception of the South African and Australian respondents (Wells and Fieger, 2005), the respondents from the various countries acknowledged that accounting requires a high level of problem-solving abilities. The respondents in this study and those preceding it (Hardin *et al.*, 2000; Wells and Fieger, 2005; Sugahara *et al.*, 2006) generally agreed that the quantitative requirements of the accounting profession are at least equal to those of the other

professions, with the exception of the engineering profession which is regarded as having the greatest requirement for quantitative skills.

Lesser agreement across countries

Respondents in South Africa and New Zealand (Wells and Fieger, 2005) viewed the accounting professions' level of ethics and liability for malpractice on a similar level as the other professions with the exception of medicine, where the respondents agreed more strongly that it was applicable. It could be argued that the effect of corporate failures and accounting scandals in the other countries may be having a greater influence on public perceptions in those countries than in South Africa and New Zealand.

The respondents in South Africa suggested that being an accounting professional was as powerful a position as being a member of one of the other professions considered. This was not the case in Australasia (Wells and Fieger, 2005) where membership of the medical or legal profession was viewed as being a more powerful position. In Japan (Sugahara *et al.*, 2006) and the USA (Hardin *et al.*, 2000) the accounting profession was seen as holding the least powerful position. These findings seem to correlate with the perception that there is a greater parity in earning potential amongst professions in South Africa, while in the other countries (Hardin *et al.*, 2000; Wells and Fieger, 2005; Sugahara *et al.*, 2006) the accounting profession was generally considered as having the least earnings potential.

Despite a few areas of lesser agreement the respondents from the various countries generally agreed on the applicability of an attribute to the accounting profession in comparison to the engineering, legal and medical professions. For the most part the accounting profession was held in lower esteem than the other professions. Those limited instances in which the accounting profession was held in higher esteem than the other professions were usually due to country-specific factors such as the lack of certification of the engineering profession in Japan or the current judiciary problems in South Africa.

Conclusion

This study replicated the research of Hardin *et al.* (2000), Wells and Fieger (2005) and Sugahara *et al.* (2006). These authors evaluated secondary school teachers' perceptions of the accounting profession in comparison to the engineering, legal and medical professions in the USA, Australasia and Japan, respectively. The target population of this study was limited to secondary school career guidance counsellors and mathematics teachers. These teachers should have the opportunity of influencing students who qualify to enter the education programmes of the professions under consideration. South Africa continues to have a shortage of career guidance counsellors and as result the vast majority of respondents to this study were mathematics teachers. These two respondent groups largely agreed on the relative applicability of the professional attributes to each of the professions (Table 4).

Based on the results of this study, the low esteem in which the accounting profession is held internationally (Hardin *et al.*, 2000; Wells and Fieger, 2005; Sugahara *et al.*, 2005) is equally prevalent in South Africa. The secondary school teachers surveyed in South Africa held the accounting profession in lower esteem than the engineering and medical professions, but in higher esteem than the legal profession. The old boring 'bean counter' image appears firmly ingrained in the respondents' perceptions of the accounting profession. The teachers' misperception of the accounting profession needs to be addressed to ensure that they provide accurate information about the accounting profession to their students. With the dramatic shortage of accounting professionals in South Africa, the profession cannot afford to let any potential entrants 'slip through its fingers' because of the misperceptions that these students and their referents may have of the profession.

Through its Thuthuka initiative launched in 2002, SAICA has taken significant steps to promote the accounting profession as a career of choice amongst previously disadvantaged secondary school students. These promotional activities have included, *inter alia*, the hosting

of school business games and offering supplementary accounting and mathematics classes at secondary schools. However, the results of this study suggest that the misperceptions of the accounting profession remain. The profession, through SAICA, and the universities must expand their marketing efforts to ensure that secondary school teachers are appropriately informed of the true nature of an accounting professionals' work. Byrne and Willis (2005, p.377) suggested that assisting teachers in integrating real world examples into their teaching may improve not only the teachers knowledge of the profession but also that of their students. Furthermore, practitioners should also become more involved in the marketing of the profession to potential entrants (Cory, 1992, p. 22). The following positive perceptions of the accounting profession identified in this study may serve as a good starting point in future marketing and recruitment activities:

- female members of the accounting profession have similar advancement potential to their medical counterparts and significantly better advancement potential to female members of the engineering and legal professions;
- the accounting profession offers significantly better job opportunities and advancement potential than the legal profession;
- the accounting profession allows for a well balanced work and home lifestyle as it requires shorter working hours than the medical profession; and
- the accounting profession provides an excellent career for honours students, placing these students in powerful positions in society and providing them with good earnings potential.

Despite the fact that the accounting profession is held in relatively low esteem in comparison to the other professions, the respondents to this study and those preceding it showed a fairly strong level of agreement, based purely on mean scores, that the attributes of a profession are applicable to the accounting profession. The challenge for those marketing and recruiting for the profession is to increase these levels of agreement to be at least the

equal of, if not better, than the other professions. Through adequate marketing and information programmes, it is hoped that secondary school teachers will no longer disseminate the following advice:

“in your report here it says that you are an extremely dull person. Our experts describe you as an appalling dull fellow, unimaginative, timid, lacking in initiative, spineless, easily dominated ... Whereas in most professions these would be considerable drawbacks, in Accountancy they are a positive boon” (Bougen, 1994, quoting a Monty Python Sketch).

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