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### Education Implications of the Changing Role of Accountants: Perceptions of Practitioners, Academics and Students

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## Education Implications of the Changing Role of Accountants: Perceptions of Practitioners, Academics and Students

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This paper investigates the premise that the role of accountants has changed in recent times, and considers the implications for future accounting education. A review of the current literature was undertaken to determine the contemporary understanding of accounting roles and the possible impacts of this on the skills needed by accounting graduates to be successful in the workplace. The literature review also considered personal characteristics that are expected to be beneficial to the accountants of the future. A pilot survey was undertaken to ascertain the different perceptions of three participant groups in relation to the changing role of accountants and the efficacy of university education in preparing students for graduate employment. These groups consisted of accounting academics and students within the University of Wollongong, and practitioners from the surrounding area. Results were analysed using parametric statistics to develop an overall picture of the sample, and non-parametric statistics to discern differences in perceptions between the target groups. The preliminary findings indicate that there is a difference in these perceptions, with practitioners being the group that most strongly believe that accounting education providers need to adapt their programs to meet the expanding requirements of the profession. However, academics are more concerned with the need to provide the essential skills for a well-rounded education, and a foundation for the development of lifelong learning.

#### **Keywords**

accounting education, roles, skills, academics, students, practitioners, perceptions

#### **Disciplines**

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# EDUCATION IMPLICATIONS OF THE CHANGING ROLE OF ACCOUNTANTS: PERCEPTIONS OF PRACTITIONERS, ACADEMICS AND STUDENTS

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#### **ABSTRACT**

This paper investigates the premise that the role of accountants has changed in recent times, and considers the implications for future accounting education. A review of the current literature was undertaken to determine the contemporary understanding of accounting roles and the possible impacts of this on the skills needed by accounting graduates to be successful in the workplace. The literature review also considered personal characteristics that are expected to be beneficial to the accountants of the future.

A pilot survey was undertaken to ascertain the different perceptions of three participant groups in relation to the changing role of accountants and the efficacy of university education in preparing students for graduate employment. These groups consisted of accounting academics and students within the University of Wollongong, and practitioners from the surrounding area. Results were analysed using parametric statistics to develop an overall picture of the sample, and non-parametric statistics to discern differences in perceptions between the target groups. The preliminary findings indicate that there is a difference in these perceptions, with practitioners being the group that most strongly believe that accounting education providers need to adapt their programs to meet the expanding requirements of the profession. However, academics are more concerned with the need to provide the essential skills for a well-rounded education, and a foundation for the development of lifelong learning.

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#### INTRODUCTION

The literature indicates that the role of accounting has changed in recent years, and that it will continue to do so (Blewitt 2003; Burns and Scapens 2000; Fleming 1999; Kelman 2005; Kroll 2005). Thus, the tasks performed by accountants have expanded to reflect these developments in the workplace (Blewitt 2003; Holtzman 2004; Jackson and Lapsley 2003; Yasin, Bayes and Czuchry 2005). This means that the skills needed for professional success have also changed (Karr 2005; Power 2003;

Siegel 2000). This, in turn, has necessitated the transformation of the current skill set required by accounting graduates (Siegel 2000; Stimpson 2000).

In addition, the literature outlines the contributions of current accounting education, and indicates that modifications and improvements may be necessary to assist graduates in preparing to meet the changing character of accounting tasks, and to develop graduate attributes that are important for success in practice (French and Coppage 2000; Schott Karr 2005; Steadman and Green 1995). However, this literature is principally written from an American practitioner-based perspective.

Thus, this paper attempts to fill two gaps in the literature: first, by taking an Australian focus, and second, by considering the changes from both academic and practitioner perspectives. The study investigates the premise that the role of accountants has changed in recent times by considering the different perspectives of educators, students and practitioners in relation to the existing and future role of accountants. In addition, it suggests implications and potential changes that may be indicated for future accounting education.

The next section of the paper reviews the literature on the expanding role of the accounting profession, the ensuing evolution of the skills base and the differing expectations of various stakeholders. This is followed by a consideration of the call for educational change which has provided the motivation for this paper. The subsequent sections discuss the study and its results. The paper concludes with suggestions for future research.

#### **EXPANSION OF THE ACCOUNTING PROFESSION**

The literature pertaining to the responsibilities and expertise of practicing accountants can be divided into three main categories: first, the traditional and current role of accountants; secondly, the skills required by accountants in the current work environment, and thirdly, the conflicting perceptions and expectations of the various stakeholders within the accounting community. These have subsequently led to calls for educational change in the accounting discipline.

#### Roles

The first category of the literature argues that there has been a shift in the accounting role, from merely information provision to extended information facilitation (Burns and Scapens 2000; Power 2003; Yasin, Bayes and Czuchry 2005), and that this has resulted in the need for accounting graduates to be forward thinkers, skilled strategists and team players. New graduates are being thrust into advisory roles often requiring them to engage in strategic decision making tasks (Corrigan 1997). This adaptation of the role of accounting practitioners highlights the need for changes to the education of accountants to meet the practicing requirements for the role that accountants now encompass in the workplace.

This has arisen because the role of an accountant has developed over time from the stereotypical number cruncher, with the role of bookkeeper, data analysis and tax preparer, into a role that encompasses a much wider range of duties, and additional soft skills, normally associated with managers, such as people management and communication abilities (Blewitt 2003; Kelman 2005). Nevertheless, traditional

accounting tasks are still seen as central to organisational operation (Jackson and Lapsley 2003) in terms of monitoring and improving efficiency with the "the accounting subsystem ... the entity most qualified to identify and track the cost of quality" (Yasin, Bayes and Czuchry 2005, p. 324).

#### Skills

The second area in the expansion of accounting literature relates to the skills that are considered desirable for accountants working in practice. These include the traditional as well as so called 'soft skills' that give accountants the ability to contribute positively to the tasks that they are required to perform. The evolution of the accounting role has meant that new graduates are thrust into advisory roles and thus need to develop new proficiencies and become broad-based business people (Corrigan 1997; Holtzman 2004). Thus, it is important to recognise that in accounting practice there are a number of components and factors that influence accounting choice and the relevant consequences. To this end, information technology, economics, measurement, finance, ethics, regulation, law, individual, group and organisational behaviour, and the political economy all provide concepts for accounting choice, which develops the need for a broad approach to the education of accountants (Howieson 2003; Kinney 2003).

While it can be acknowledged that accounting has adapted over time to meet the perceived needs of society, as processes have changed, so accounting has evolved, and accountants have been required to enhance their skill set (Fleming 1999; Howieson 2003; Palmer, Ziegenfuss and Pinsker 2004; Siegel 2000). This has been necessary to provide the information that managers and investors desire. Furthermore, as legislative changes have occurred, accountants have been given the role of providing the skills and techniques to meet information requirements (Garraway 2006). This evidenced by the assertion that "accounting has probably always been the servant of wealth" while "maintain orderly functioning of commerce" and that this perception is reinforced by the statement of professional standards that define the public that accountants serve as "clients, creditors, government, employers, investors, the business and financial community, and others that rely on the objectivity and integrity" (Williams, 2004, p. 514). Williams also suggested that accounting has evolved into business consulting, and is only there to meet the needs of big business, that accounting does not provide valid knowledge for what it does, but merely rationales for entrepreneurial activities. Despite his overly pessimistic view of the role that accounting plays in our society, there are aspects of his work that demand consideration. What part should accounting professional bodies play in setting the standards for accounting graduates? Should universities be catering to the needs of business at the expense of providing accounting degrees that give graduates the skills essential for them to be able to critically evaluate practices in the work place?

#### Stakeholder perceptions and expectations

In addition, the literature indicates that there are substantial differences in the expectations of stakeholders with respect to the skills required by accounting graduates (Albrecht and Sack 2000; French and Coppage 2000; Garraway 2006). Cowdroy et al (2002, p. 168) stated that: "a major challenge for higher education is to demonstrate relevance and educational quality to an increasingly wide range of stakeholders with conflicting expectations in the name of accountability". The research conducted by Cowdroy et al (2002) was centred on a science-based

discipline but can equally be applied to accounting students and graduates. They found that graduates expected to be employed within discipline-based organisations, and that often their potential employers have strong links to professional bodies' accreditation of the educational programs (Cowdroy et al 2002). This has led to a confusion of expectations and demonstrates that differing expectations of the students, academics, and employers has a significant impact and there is a need to find ways of addressing the various needs of the differing stakeholders.

Consequently, it is necessary to consider the perceptions of these three distinct groups—practitioners, academics and students. Studies of perceptions of the stakeholders in accounting are not new, and several are discussed in this section. An American study by Usoff and Feldmann (1998) considered the skills that are important for success in an accounting career, from a student's perspective. The research addressed the relative importance of technical and non-technical accounting skills, as perceived by graduate and undergraduate accounting students. The results suggested that there were differences between the two groups of students with undergraduates having a lower understanding of the importance of non-technical skills. In addition, males in both groups ranked leadership skills more highly than females.

Another study conducted in the UK by Miller and Woods (2000) compared educators' and employers' perceptions of the undergraduate tax education provided in UK universities. Interestingly, while 87 percent of educators believed that the ability to perform tax computations were key learning outcomes, only 40 percent of employers indicated that they would have a strong expectation of graduates processing that ability. This is another indicator that expectations between accounting stakeholders vary and that accounting education may not be meeting the needs and requirements of practitioners.

From an Australian perspective, there have been several studies about aspects of various perceptions of students, academics and practitioners of accounting over the last decade. Zaid and Abraham (1994) focused on the perception held by these groups regarding the importance of communication skills. De Lange, Jackling and Gut (2006) focused on the perceptions that accounting graduates have of the emphasis that should be placed on developing technical and generic skills. Watty (2005) has considered the quality of accounting education from an academic perspective. She conducting a survey of academic accountants, concentrating on the different views of quality in accounting education held by academics. Her results suggested that the education currently being provided in universities, does not address the issue of quality, but only the compliance with quality assurance and improvement programs, with little focus on the issue of providing students with a quality education.

#### **CALLS FOR EDUCATIONAL CHANGES**

Consequently, there is a need to consider the implications for accounting education arising from the conflicting requirements and perceptions of the various interest groups. This was demonstrated by the two Australian professional accounting bodies, CPA Australia and the Institute of Chartered Accountants in Australia (ICAA), in their accreditation guidelines for Australian Universities (CPA & ICAA 2005). They listed a number of skills that are applied in practice and are valued by employers.

These skills included the generic skills that are commonly accepted as normal accounting skills such as report writing, computer literacy, identifying and organising information, analysis and interpretation of data and ethical reasoning. They also included the ability to react to new ideas, adaptivity, lifelong learning, critical analysis and multi-disciplinary perspectives. In addition, behavioural skills such as flexibility, independence, creativity, and interpersonal skills that give the ability to listen, present views, transfer knowledge, negotiate and collaborate, were deemed of equal importance. Thus, while the traditional technical accounting skills are seen to be greatly valued by the profession, there is also recognition that individual interpersonal attributes are highly desired and need to be reinforced and further developed.

Nevertheless, caution must be applied since there is concern that universities have moved away from their traditional role of imparting knowledge for virtue rather than for utility (Albrecht and Sack 2001; Symes et al 2000). This is demonstrated by the perception that education is becoming an economic market (Marginson 1995) dominated by external demands, where the focus of students education is on meeting the needs of practice rather than on providing the attributes important for graduates to succeed in the workforce (Chia 2005; Gouthro 2002; Pearce 2006; Steadman and Green 1995).

Thus, accounting education has become increasingly more complex to manage as the business environment is constantly evolving. While the accounting role was restricted to the provision of financial information and analysis, accounting education focused on the development and application of accounting and audit knowledge. In the current climate, the acquisition of technical accounting skills is still relevant, but there is an increasing need for accountants to have business management knowledge and skills, a well-developed knowledge of information technology, and greater interpersonal skills (French and Coppage 2000). Educators have been seen as placing too much emphasis on the financial and regulatory matters and failing to assist in the development of the necessary skills required by practising management accountants (Barbera 1996; Gammie, Gammie and Cargill 2002). This call for changes to education of accountants demonstrates that it is important to ensure that all interested parties are operating from the same beliefs.

Alternatively, Gouthro (2002) suggested that universities need to provide courses that will attract more students and meet the needs of the business community, by allowing more flexibility in structuring activities to suit the needs of business, and that the institutional priority should be student satisfaction. Gouthro recommended that (from an accounting educator's point of view) universities cater to the needs of business because they are the future employers, and students graduating will therefore be more highly valued if the university is meets the employers' requirements. In fairness, she has acknowledged that if education were there only to provide the credentials needed for students to advance themselves in the work place then a number of issues may be overlooked.

Traditionally, due to issues of timeliness, accountants have been viewed as the source of dated and irrelevant information by other areas in firms. However, there is an increasing recognition of the importance of accounting in the management process. Yet graduates are often not prepared to take on the role of strategic decision making that is increasingly being demanded of them. Steadman and Green (1995) suggest that

changes to the accounting education are needed to enable graduates to have an understanding of the interrelationship of the entire firm so they are able to prepare and interpret the information needs of the firm. They also highlight need for two types of skills. First, there is a need for the traditional skills of accountants to be maintained since these are essential to providing a base skill set. Second, there is a need for accountants to develop additional skills to meet the increasing demands created by changes to the accounting tasks.

The resultant need for further research in this area is addressed in the next section which outlines the research questions and provides an overview of the study.

#### THE STUDY

Thus, these calls for change focus not only on the needs of the marketplace and the requirements of employers, but also on issues about life long learning and providing the skills and attributes that accountants of the future will need to meet the growing expectations of their roles. Consequently, this study is designed to develop an understanding of the differing perceptions of the various stakeholders within the accounting community. It also considers if there are contradictory perceptions among particular stakeholder groups and the factors that may have been influenced their views of the role that accountants have and the skills that are of greatest value.

The study differs from previous research first, by taking an Australian focus, and secondly, by considering the changing role of accounting from an academic perspective as well as a practitioner viewpoint. It considers the affect of the perceived changes to the role of accountants and how those changes can potentially impact on the content and delivery of academic training of accounting undergraduates. It compares perceptions about the role of accounting, and the characteristics needed by accounting practitioners, among the various stakeholders, and how those perceptions vary within and across the groups.

A pilot survey was conducted of accounting students, accounting and finance academics, and accounting practitioners in the Wollongong area. This study investigated the following research questions:

- 1. Are there differences among the perceptions of academics, practitioners and students of the roles and skills required by accounting graduates?
- 2. Are there differing opinions within the academic group based on whether they have worked as a practicing accountant?
- 3. Are there differences between the perceptions of academics and practitioners?
- 4. Are there particular tasks or skills which are perceived as more important to different groups?
- 5. Are there differences in the perceptions of academics and students?

#### Research Instrument

The research instrument was a questionnaire developed after a review of the literature and conducted in accordance with the University of Wollongong (UOW) ethics requirements. It consisted of 32 questions that addressed the importance of particular characteristics and the roles undertaken by accounting graduates once they enter the workforce. A seven point Likert Scale was used as the basis of measurement and each

group was given the same survey. Participants were asked to rate the importance of the characteristics of successful accountants and accounting roles that they perceived as relevant in the workplace. In addition, the academics were asked if they had ever practiced as accountants. This helped to establish if there were different perceptions between those who had been employed as accountants and those who had not.

#### Participant selection

The survey was administered to three different groups: accounting practitioners, accounting and finance academics and accounting students. The accounting practitioners were approached at two separate meetings of the Illawarra Branch of CPA Australia and surveys were distributed and collected by the function coordinator. CPA meetings were selected as a suitable medium to obtain a cross section of practicing accountants, as it was assumed that this group would provide a balanced selection of accounting practitioners, and that they were likely to be current in their knowledge and appreciation of the skills and roles that accounting professionals were required to employ. All academics in the School of Accounting and Finance at UOW were asked to participate via an e-mail request and surveys were distributed and collected from the School Office to maintain anonymity and confidentiality of data. The student survey was administered on a voluntary basis at the beginning of a third year management accounting lecture at UOW, in week 7 of the 2006 Spring Session. These students were selected as it was anticipated that by the third year of their undergraduate degree they were likely to have developed a reasonable understanding of the roles undertaken by practising accountants and the characteristics that would help them succeed in the workplace. Table 1 provides a summary of the response rates of the participant groups.

**TABLE 1: Response Rates of Survey Participants** 

|                     |                 | Useable responses |     |  |
|---------------------|-----------------|-------------------|-----|--|
| <b>Participants</b> | Number surveyed | n                 | %   |  |
| Academics           | 31              | 18                | 58% |  |
| Students            | 82              | 69                | 84% |  |
| Practitioners       | 28              | 26                | 93% |  |

#### Data and methodology

The data was initially extracted from the survey then matched, combined and processed using Microsoft Excel. Descriptive statistics were initially generated as shown in Table 2.

After examination, the results were further analysed using parametric statistics to develop an overall picture of the sample, and non-parametric statistics to discern differences in perceptions between the target groups using SPSS to develop inferential statistics (t-test and F-test) to test the hypotheses that:

- H<sub>1</sub>: That there is a difference in the perceptions of academics, practitioners and students.
- H<sub>2</sub>: That academics' perceptions vary depending on whether or not they have been employed as practising accountants.
- H<sub>3</sub>: That academics and students have different perceptions.

H<sub>4</sub>: That practitioners and students have different perceptions. H<sub>5</sub>: That academics and practitioners have different perceptions.

**TABLE 2: Means of Stakeholder Perceptions** 

| Accounting Characteristic or Role          | Academic | Practitioner | Student |
|--|----------|--------------|---------|
| Q1 Self confidence                         | 5.4      | 6.2          | 5.8     |
| Q2 Intelligence                            | 5.9      | 6.0          | 5.7     |
| Q3 Academic results                        | 4.7      | 4.7          | 4.8     |
| Q4 Motivation                              | 5.7      | 6.2          | 5.7     |
| Q5 Leadership abilities                    | 5.3      | 5.8          | 5.2     |
| Q6 Involvement in community activities     | 3.8      | 4.5          | 4.6     |
| Q7 Self belief                             | 5.5      | 6.0          | 5.7     |
| Q8 Variety of any type of work experience  | 5.1      | 5.6          | 5.4     |
| Q9 Variety of accounting experience        | 5.1      | 5.9          | 5.4     |
| Q10 Critical analysis skills               | 6.1      | 6.3          | 5.7     |
| Q11 Managerial skills                      | 5.0      | 5.6          | 5.2     |
| Q12 Team work skills                       | 5.5      | 5.7          | 5.6     |
| Q13 Group work experience                  | 5.2      | 5.5          | 5.3     |
| Q14 Ability to learn                       | 5.9      | 6.0          | 5.5     |
| Q15 Respect in the community               | 4.9      | 5.2          | 5.4     |
| Q16 High ethical standards                 | 6.1      | 6.0          | 5.9     |
| Q17 Organisation skills                    | 5.9      | 6.0          | 6.0     |
| Q18 Data collection                        | 5.0      | 5.3          | 5.3     |
| Q19 Data analysis                          | 6.0      | 5.9          | 5.6     |
| Q20 Communication of financial information | 6.4      | 6.2          | 5.6     |
| Q21 Ability to manage staff                | 5.0      | 5.9          | 5.1     |
| Q22 Time management skills                 | 6.2      | 6.3          | 5.7     |
| Q23 Ability to deal with clients           | 6.3      | 6.4          | 5.8     |
| Q24 Ability to teach subordinates          | 5.2      | 6.0          | 5.3     |
| Q25 IT knowledge                           | 5.3      | 5.3          | 5.3     |
| Q26 Budget preparation                     | 5.6      | 5.7          | 5.6     |
| Q27 Audit preparation                      | 5.7      | 5.3          | 5.5     |
| Q28 Knowledge of tax regulations           | 5.8      | 5.6          | 5.8     |
| Q29Managerial skills                       | 4.7      | 5.8          | 5.3     |
| Q30 University provides good basics        | 5.7      | 5.4          | 5.4     |
| Q31 University teaches students to learn   | 5.4      | 5.5          | 5.2     |
| Q32 University provides skills needed      | 5.1      | 4.9          | 5.3     |

The groups were tested to discover the variances using Analysis of Variance (ANOVA) test (F-test) and Independent Sample tests (t-test). In addition, a factor analysis was conducted using SPSS to establish the factors that groups of participants viewed as important. The factors were further examined using independent sample tests.

#### ANALYSIS AND DISCUSSION

Analysis of the results demonstrated that different groups had perceptions that varied in a number of areas. Initially, an ANOVA analysis was conducted at a 95% confidence interval to test the  $H_1$ .

 $H_0$  = That means of perceptions of all groups are equal.

 $H_1$  = That there is a difference in the perceptions of academics, practitioners and students (that is, at least one of the means is not equal).

The critical F value for 110 degrees of freedom, as demonstrated in the Table 3 is 3.07 ( $F_{crit} = 3.07$ ). The data highlights that particular areas were of more significance to specific groups. Table 3 shows the specific questions that created these different responses.

**TABLE 3: ANOVA Test of Differences in Perceptions** 

|             |                | Sum of  |     |             |       |       |
|-------------|----------------|---------|-----|-------------|-------|-------|
|             |                | Squares | df  | Mean Square | F     | Sig.  |
| Question 1  | Between Groups | 6.276   | 2   | 3.138       | 3.493 | 0.034 |
|             | Within Groups  | 98.822  | 110 | 0.898       |       |       |
|             | Total          | 105.097 | 112 |             |       |       |
| Question 5  | Between Groups | 6.066   | 2   | 3.033       | 3.154 | 0.047 |
|             | Within Groups  | 105.775 | 110 | 0.962       |       |       |
|             | Total          | 111.841 | 112 |             |       |       |
| Question 6  | Between Groups | 8.277   | 2   | 4.138       | 2.427 | 0.093 |
|             | Within Groups  | 187.599 | 110 | 1.705       |       |       |
|             | Total          | 195.876 | 112 |             |       |       |
| Question 10 | Between Groups | 10.700  | 2   | 5.350       | 5.117 | 0.008 |
|             | Within Groups  | 115.016 | 110 | 1.046       |       |       |
|             | Total          | 125.717 | 112 |             |       |       |
| Question 11 | Between Groups | 6.306   | 2   | 3.153       | 2.612 | 0.078 |
|             | Within Groups  | 132.792 | 110 | 1.207       |       |       |
|             | Total          | 139.097 | 112 |             |       |       |
| Question 20 | Between Groups | 12.258  | 2   | 6.129       | 6.692 | 0.002 |
| `           | Within Groups  | 100.751 | 110 | 0.916       |       |       |
|             | Total          | 113.009 | 112 |             |       |       |
| Question 21 | Between Groups | 12.158  | 2   | 6.079       | 5.610 | 0.005 |
| `           | Within Groups  | 119.205 | 110 | 1.084       |       |       |
|             | Total          | 131.363 | 112 |             |       |       |
| Question 22 | Between Groups | 8.125   | 2   | 4.062       | 4.724 | 0.011 |
| `           | Within Groups  | 94.601  | 110 | 0.860       |       |       |
|             | Total          | 102.726 | 112 |             |       |       |
| Question 23 | Between Groups | 9.753   | 2   | 4.876       | 4.118 | 0.019 |
|             | Within Groups  | 130.247 | 110 | 1.184       |       |       |
|             | Total          | 140.000 | 112 |             |       |       |
| Question 24 | Between Groups | 11.083  | 2   | 5.542       | 4.581 | 0.012 |
|             | Within Groups  | 133.058 | 110 | 1.210       |       |       |
|             | Total          | 144.142 | 112 |             |       |       |
| Question 29 | Between Groups | 12.816  | 2   | 6.408       | 6.132 | 0.003 |
|             | Within Groups  | 114.954 | 110 | 1.045       |       | _     |
|             | Total          | 127.770 | 112 |             |       |       |

Academics were separated into two groups: those that had worked as practising accountants and those that had not. Using independent sample testing  $H_2$  was analysed at a 90% confidence interval. The results are shown in Table 4.

- $H_0$  = That perceptions of academics do not differ regardless of whether or not they have worked as practising accountants.
- $H_2$  = That perceptions of academics vary depending on whether or not they have been employed as practising accountants.

The critical t value for 16 degrees of freedom, as demonstrated in the Table 4 is 1.7459 ( $t_{crit}=1.7459$ ).

TABLE 4: Independent Samples Test of Academics with and without Experience as Practising Accountants

|       |                         |       | ne's Test |                              |   |          |            |            |          |          |  |  |
|-------|-------------------------|-------|-----------|------------------------------|---|----------|------------|------------|----------|----------|--|--|
|       |                         |       | uality of | t toot for Equality of Moone |   |          |            |            |          |          |  |  |
|       |                         | var   | iances    |                              | t-test for Equality of Means 95% Confidence |          |            |            |          |          |  |  |
|       |                         |       |           |                              |   | Sig. (2- | Mean       | Std. Error |          | l of the |  |  |
|       |                         | F     | Sig.      | t                            | df  | tailed)  | Difference | Difference |          | erence   |  |  |
|       |                         |       | )         |                              |   | ,        |            |            | Lower    | Upper    |  |  |
| Qu 1  | Equal variances assumed | 0.938 | 0.347     | -1.380                       | 16  | 0.186    | -0.63636   | 0.46099    | -1.61363 | 0.34090  |  |  |
| Qu 5  | Equal variances assumed | 0.544 | 0.471     | -2.121                       | 16  | 0.050    | -1.01299   | 0.47757    | -2.02539 | -0.00058 |  |  |
| Qu 7  | Equal variances assumed | 1.299 | 0.271     | -1.957                       | 16  | 0.068    | -1.05195   | 0.53739    | -2.19117 | 0.08728  |  |  |
| Qu 8  | Equal variances assumed | 0.285 | 0.601     | 1.757                        | 16  | 0.098    | 0.98701    | 0.56190    | -0.20417 | 2.17820  |  |  |
| Qu 21 | Equal variances assumed | 0.118 | 0.735     | -3.034                       | 16  | 0.008    | -1.16883   | 0.38520    | -1.98542 | -0.35224 |  |  |
| Qu 26 | Equal variances assumed | 1.117 | 0.306     | -1.596                       | 16  | 0.130    | -0.76623   | 0.47995    | -1.78368 | 0.25121  |  |  |
| Qu 27 | Equal variances assumed | 0.012 | 0.913     | -1.504                       | 16  | 0.152    | -0.71429   | 0.47478    | -1.72078 | 0.29221  |  |  |
| Qu 28 | Equal variances assumed | 1.169 | 0.296     | -1.270                       | 16  | 0.222    | -0.66234   | 0.52163    | -1.76814 | 0.44346  |  |  |
| Qu 29 | Equal variances assumed | 2.033 | 0.173     | -1.221                       | 16  | 0.240    | -0.71429   | 0.58506    | -1.95457 | 0.52600  |  |  |
| Qu 31 | Equal variances assumed | 0.029 | 0.867     | -2.167                       | 16  | 0.046    | -0.87013   | 0.40160    | -1.72149 | -0.01877 |  |  |
| Qu 32 | Equal variances assumed | 5.544 | 0.032     | -2.234                       | 16  | 0.040    | -1.02597   | 0.45934    | -1.99974 | -0.05221 |  |  |

The results revealed that academics who had been employed as practising accountants had higher perceptions of the importance of particular roles undertaken and skills needed by accounting graduates. In particular, personal skills such as self-belief, self-confidence and management skills. They also had higher expectations of the importance of IT, budget, audit, and tax roles.

#### Factor analysis

Factor analysis is a technique that determines how well various items relate to each other and then forms them into clusters or factors. A factor analysis was conducted using SPSS, to assist in the analysis of the data and determine which factors may be of significance. Factors were used to more efficiently represent outcomes with each factor denoting several different variables (Salkind, 2004). A summary description of each of the eight identified factors is shown in Table 5.

**TABLE 5: Summary Descriptions of Factors** 

| Factor | Description   |
|--------|---|
| 1      | Managerial and accounting functions                             |
| 2      | Personal skills such as intelligence, motivation and leadership |
| 3      | Academic results and education provided by universities         |
| 4      | Group working skills  |
| 5      | Analysis and ethical standards                                  |
| 6      | Community attitudes   |
| 7      | Data skills   |
| 8      | Work experience   |

These eight factors explain 71.4 percent of the variances. The variances are displayed in Table 6. Table 7 shows the means and standard deviations of the eight factors.

**TABLE 6: Total Variance Explained Using Rotated Component Matrix** 

|        |        |               |            | Extra  | ction Sums | of Squared | Rotation Sums of Squared |          |            |  |
|--------|--------|---------------|------------|--------|------------|------------|--------------------------|----------|------------|--|
| Factor | I      | nitial Eigenv | values     |        | Loading    | S          | Loadings                 |          |            |  |
|        |        | % of          | Cumulative |        | % of       | Cumulative |                          | % of     | Cumulative |  |
|        | Total  | Variance      | %          | Total  | Variance   | %          | Total                    | Variance | %          |  |
| 1      | 11.500 | 35.938        | 35.938     | 11.500 | 35.938     | 35.938     | 4.589                    | 14.341   | 14.341     |  |
| 2      | 2.601  | 8.129         | 44.068     | 2.601  | 8.129      | 44.068     | 3.483                    | 10.884   | 25.225     |  |
| 3      | 2.231  | 6.971         | 51.038     | 2.231  | 6.971      | 51.038     | 2.953                    | 9.227    | 34.452     |  |
| 4      | 1.704  | 5.324         | 56.362     | 1.704  | 5.324      | 56.362     | 2.816                    | 8.800    | 43.251     |  |
| 5      | 1.389  | 4.340         | 60.702     | 1.389  | 4.340      | 60.702     | 2.723                    | 8.508    | 51.760     |  |
| 6      | 1.234  | 3.855         | 64.557     | 1.234  | 3.855      | 64.557     | 2.273                    | 7.104    | 58.864     |  |
| 7      | 1.150  | 3.593         | 68.149     | 1.150  | 3.593      | 68.149     | 2.216                    | 6.926    | 65.790     |  |
| 8      | 1.048  | 3.277         | 71.426     | 1.048  | 3.277      | 71.426     | 1.804                    | 5.636    | 71.426     |  |

**TABLE 7: Factor Means and Standard Deviations** 

|              |                   |          |          |          |          |          | Factor  | Factor  | Factor  |
|--------------|-------------------|----------|----------|----------|----------|----------|---------|---------|---------|
|              |                   | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 | 6       | 7       | 8       |
| Academic     | Mean              | 5.3182   | 5.7101   | 5.5147   | 5.5082   | 5.9242   | 4.6923  | 5.7000  | 5.1132  |
|              | N                 | 66       | 69       | 68       | 61       | 66       | 52      | 60      | 53      |
|              | Std.<br>Deviation | 1.19175  | 0.94092  | 0.98485  | 0.97678  | 1.23177  | 1.46245 | 1.26625 | 1.28093 |
| Practitioner | Mean              | 5.5696   | 5.9091   | 5.2706   | 5.6410   | 6.0345   | 5.1647  | 5.6049  | 5.6818  |
|              | N                 | 79       | 88       | 85       | 78       | 87       | 85      | 81      | 88      |
|              | Std.<br>Deviation | 0.99593  | 1.05739  | 1.42585  | 0.91132  | 1.08315  | 1.37015 | 1.22146 | 0.97728 |
| Student      | Mean              | 5.2161   | 5.7163   | 5.3237   | 5.4800   | 5.5646   | 5.1722  | 5.4924  | 5.4634  |
|              | N                 | 199      | 208      | 207      | 200      | 209      | 209     | 197     | 205     |
|              | Std.<br>Deviation | 1.14528  | 1.04087  | 1.26436  | 1.11617  | 1.23914  | 1.20854 | 1.06723 | 1.35938 |
| Total        | Mean              | 5.3169   | 5.7616   | 5.3472   | 5.5221   | 5.7431   | 5.0983  | 5.5562  | 5.4653  |
|              | N                 | 344      | 365      | 360      | 339      | 362      | 346     | 338     | 346     |
|              | Std.<br>Deviation | 1.12804  | 1.02746  | 1.25740  | 1.04709  | 1.21749  | 1.29733 | 1.14191 | 1.26958 |

#### Independent sample tests of factors

Table 8 displays the results of the independent sample test for H<sub>3</sub>: That academics and students have different perceptions.

**TABLE 8: Independent Samples Test Academics and Students** 

|             |                         | Levene's Equalit | y of | t-test for Equality of Means |     |                        |                                       |            |   |          |  |  |
|-------------|-------------------------|------------------|------|------------------------------|-----|------------------------|---------------------------------------|------------|---|----------|--|--|
|             |                         |                  |      | t                            | df  | Sig.<br>(2-<br>tailed) | Mean Std. Error Difference Difference |            | 95% Confidence<br>Interval of the<br>Difference |          |  |  |
|             |                         | r                | Sig. | ı                            | uı  | taneu)                 | Difference                            | Difference | Lower   | Upper    |  |  |
| Factor 3    | Equal variances assumed | 2.859            | .092 | 1.137                        | 273 | 0.256                  | 0.19103                               | 0.16798    | -0.13967  | 0.52174  |  |  |
| Factor 5    | Equal variances assumed | 1.795            | .181 | 2.059                        | 273 | 0.040                  | 0.35965                               | 0.17471    | 0.01569   | 0.70361  |  |  |
| Factor<br>6 | Equal variances assumed | 4.799            | .029 | -2.453                       | 259 | 0.015                  | -0.47994                              | 0.19566    | -0.86523  | -0.09465 |  |  |
| Factor 7    | Equal variances assumed | 0.802            | .371 | 1.261                        | 255 | 0.208                  | 0.20761                               | 0.16462    | -0.11658  | 0.53181  |  |  |
| Factor<br>8 | Equal variances assumed | 2.148            | .144 | -1.691                       | 256 | 0.092                  | -0.35021                              | 0.20708    | -0.75800  | 0.05759  |  |  |

Academics and students perceptions differed with academics placing greater value on academic results, ethics community attitudes, data analysis and work experience while students expectations were higher in relation to the importance of experience and community attitudes.

Table 9 summarises the results for:

H<sub>4</sub>: That practitioners and students have different perceptions.

**TABLE 9: Independent Samples Test – Practitioners and Students** 

|          |                         | for Ec | ne's Test<br>quality of<br>iances | t-test for Equality of Means   |     |       |          |         |          |          |  |  |
|----------|-------------------------|--------|-----------------------------------|--|-----|-------|----------|---------|----------|----------|--|--|
|          |                         | F      | Sig.                              | Sig. (2- Mean Std. Error Interval of the df tailed) Difference Difference Difference |     |       |          |         |          | of the   |  |  |
|          |                         |        |                                   |  |     |       |          |         | Lower    | Upper    |  |  |
| Factor 5 | Equal variances assumed | 1.795  | 0.181                             | 2.059  | 273 | 0.040 | 0.35965  | 0.17471 | 0.01569  | 0.70361  |  |  |
| Factor 6 | Equal variances assumed | 4.799  | 0.029                             | -2.453   | 259 | 0.015 | -0.47994 | 0.19566 | -0.86523 | -0.09465 |  |  |
| Factor 7 | Equal variances assumed | .802   | 0.371                             | 1.261  | 255 | 0.208 | 0.20761  | 0.16462 | -0.11658 | 0.53181  |  |  |
| Factor 8 | Equal variances assumed | 2.148  | 0.144                             | -1.691   | 256 | 0.092 | -0.35021 | 0.20708 | -0.75800 | 0.05759  |  |  |

The perceptions of practitioners and students differed in a number of ways. Practitioners had higher expectations of the ability of graduates to critically analyse data and also rated the importance of ethical standards more highly. However, students regarded experience and community attitudes of greater importance.

Table 10 gives the results of the test for:

H<sub>5</sub>: That academics and practitioners have different perceptions.

TABLE 10: Independent Samples Test - Academics and Practitioners

|             |                         | for Eq | ne's Test<br>uality of<br>iances | t-test for Equality of Means |     |                |                    |                          |          |               |  |  |
|-------------|-------------------------|--------|----------------------------------|------------------------------|-----|----------------|--------------------|--------------------------|----------|---------------|--|--|
| ĺ           |                         |        |                                  |                              |     | Sig.           |                    | G. 1. F.                 |          | nfidence      |  |  |
|             |                         | F      | Sig.                             | t                            | df  | (2-<br>tailed) | Mean<br>Difference | Std. Error<br>Difference |          | of the erence |  |  |
| İ           |                         |        |                                  |                              |     |                |                    |                          | Lower    | Upper         |  |  |
| Factor<br>1 | Equal variances assumed | 2.317  | 0.130                            | -1.384                       | 143 | 0.168          | -0.25144           | 0.18166                  | -0.61052 | 0.10764       |  |  |
| Factor 2    | Equal variances assumed | 0.002  | 0.964                            | -1.227                       | 155 | 0.222          | -0.19895           | 0.16208                  | -0.51911 | 0.12122       |  |  |
| Factor 3    | Equal variances assumed | 4.236  | 0.041                            | 1.201                        | 151 | 0.232          | 0.24412            | 0.20330                  | -0.15756 | 0.64579       |  |  |
| Factor 6    | Equal variances assumed | 0.482  | 0.489                            | -1.909                       | 135 | 0.058          | -0.47240           | 0.24749                  | -0.96185 | 0.01705       |  |  |
| Factor<br>8 | Equal variances assumed | 0.890  | 0.347                            | -2.971                       | 139 | 0.003          | -0.56861           | 0.19139                  | -0.94701 | -0.19021      |  |  |

Practitioners have higher perceptions of the importance of discipline-based components such as managerial and accounting functions. They also placed greater significance on personal skills, community attitudes and work experience. However, academics emphasised the value of academic results and university education.

#### CONCLUSION AND SUGGESTIONS FOR FUTURE RESEARCH

The literature demonstrates that there is an expansion in the roles undertaken by practising accountants and that the skills needed to meet these changes have resulted in additional proficiencies being required by accounting graduates. This study has considered the perceptions of academics, practitioners and students in relation to the tasks and abilities which are essential for graduates to be successful in the workplace. However, it must be remembered that this is a pilot study with a small sample size and that data may not be representative of the general population. Thus, caution should be taken in drawing wider conclusions.

It was discovered that practitioners considered that accounting graduates should have strong discipline-based skills, be work-ready and have well-developed interpersonal skills. They also recognised that accountants were undertaking increasingly challenging roles, and that graduates would be asked to have enhanced critical analysis and behavioural skills. Alternatively, academics placed greater importance on academic results and the ability to learn, although those that had been employed as accountants demonstrated views more closely aligned to those of practitioners. Students perceived work experience and achieving a satisfactory qualification as of greatest importance.

These differences in perceptions raise various questions about the adequacy of the existing training of accountants. It also highlights the need for additional research about the current accounting education. It is important to discern what should be of

central importance to universities, and whether their prime focus should be meeting the needs of stakeholders by providing courses and training that enhance ability of students to move quickly and easily into the workforce. Equally, the expectations of students need to be considered and if they are currently being provided with sufficient information about their future roles to be able to develop the skills necessary for success.

With calls for accountants to be able to take on more managerial roles and possess well developed behavioural skills, additional research is needed into the identification of appropriate skills, and how they can be measured, developed and further enhanced. Furthermore, addition attention should be give to the consideration of the value of emotional intelligence and its importance for accounting graduates because "business educators, in particular, have the responsibility to provide their graduates with a strong foundation in both technical and emotional training so that they will be well-rounded individuals, and hence worthy employees, effective managers and dynamic leaders" (Abraham 2006).

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