The expectation gap perceptions of internal audit managers by type of university attended in the Republic of South Africa

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ABSTRACT

The development and rapid growth of the internal audit profession internationally, as well as the promulgation of new legislation in the RSA, combined with the assimilation of the King reports on governance into daily business life, has resulted in an increasing desire for internal auditors to possess a more diverse and sophisticated skills set. Users of internal audit educational services in turn have increasingly shown that they desire universities in the RSA to provide them with entering trainee internal auditors who are in possession of sufficient and appropriate skills that identifies them as work-ready.

The South African educational system has undergone a fundamental restructuring since 1994 that has resulted in the creation of three different university types, each with its own distinctive focus. All three types are permitted to offer internal auditing educational programmes.

The empirical research underlying this article obtained perceptions in respect of expectation gaps pertaining to the work-readiness of entering trainee internal auditors held by participants who had obtained their highest academic qualifications from one of the three types of South African universities. Hypotheses were formulated based on the research problem and objective of the article.

The study concludes that an internal audit expectation gap does exist, and based on the results of the research it is further concluded that relationships do exist between internal audit educational expectation gaps regarding technical skills capabilities and the types of universities attended by the internal audit manager respondents; and that relationships do not exist between internal audit educational expectation gaps regarding behavioural skills capabilities and types of universities attended by the internal audit manager respondents.

Key words

Behavioural skills capabilities; employability; expectation gap; graduateness; internal audit education; technical skills capabilities; work-readiness

Acronyms used in the article:

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAE</td>
<td>Chief Audit Executive</td>
</tr>
<tr>
<td>CBOK</td>
<td>Common Body of Knowledge</td>
</tr>
<tr>
<td>CHE</td>
<td>Council for Higher Education</td>
</tr>
<tr>
<td>FASSET</td>
<td>Finance and Accounting Services Sector Education and Training Authority</td>
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<tr>
<td>HEQF</td>
<td>Higher Education Qualifications Framework</td>
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<tr>
<td>HEQSF</td>
<td>Higher Education Qualifications Sub-Framework</td>
</tr>
<tr>
<td>IAA</td>
<td>Internal Audit Activity</td>
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<td>IACF</td>
<td>Internal Auditor Competency Framework</td>
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<td>IAEP</td>
<td>Internal Audit Educational Partner</td>
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<tr>
<td>IIA</td>
<td>Institute of Internal Auditors</td>
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<td>IIA (SA)</td>
<td>Institute of Internal Auditors (South Africa)</td>
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<td>IOD</td>
<td>Institute of Directors</td>
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<tr>
<td>NOQF</td>
<td>National Qualifications Framework</td>
</tr>
<tr>
<td>RSA</td>
<td>Republic of South Africa</td>
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<tr>
<td>SAQA</td>
<td>South African Qualifications Authority</td>
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<tr>
<td>SETA</td>
<td>Sector Education and Training Authority</td>
</tr>
</tbody>
</table>

1 BACKGROUND AND INTRODUCTION

The global internal audit profession has in recent years shown substantial development resulting in significant membership growth (Erasmus 2009; Ttappous 2009; Steyn & Plant 2010; Johnson 2009). In the Republic of South Africa (RSA) the growth is largely attributable to the mandatory requirement in
South African public sector legislation (RSA 2000; RSA 2003), that obligates each public sector entity and department to have an internal audit activity (IAA). In respect of the private sector, the recommendations contained in the King Reports on Governance suggest that all organisations should have IAAs (IOD 1994; IOD 2002; IOD 2009).

The continuous rapid growth of the internal audit profession in the RSA has resulted in users of internal audit services expecting (demanding) that internal auditors provide more services, especially in respect of risk assessment, governance and controls (Steyn & Plant 2010). As a result, employers of recently graduated trainee internal auditors expect a greater level of capability over a wider range of skills, attributes and competencies than ever before (Steyn & Plant 2010; Ziekensfuss & Ramamoorti 2004). In the RSA, the introduction and implementation of the recommendations contained in the King III report on governance (IOD 2009) has further fuelled expectations – internal auditors must now play a more direct role in the improvement of governance and control systems in their organisations (Weingardt 2001; Steyn & Plant 2010).

Prompted by the rapid development of the internal audit profession the IIA commissioned two global surveys tasked with determining a common body of knowledge (CBOK 2006 and CBOK 2010) for internal auditors; the most recent survey was in 2010 (IIARF 2007; Bailey 2010). These two CBOK studies gave rise to the development of the Internal Auditor Competency Framework (IACF). More guidance documents were developed by the IIA according to which universities who currently offer formal internal audit educational programmes (and those who aspire to do so), can align their internal audit curricula.

The IACF and other guidance pronouncements set a series of benchmarks for the development of internal audit educational programmes, requiring high competence levels and standards in respect of specific competencies and skills for the various levels of internal auditors. The universities in the RSA have adopted the IIA’s guidance in respect of curriculum development and syllabus content for their formal internal audit educational programmes. Two universities in the RSA currently enjoy Internal Audit Education Partner (IAEP) endorsement status. The above discussion in respect of the development of the internal audit profession in the RSA and globally, emphasises that internal auditors should not only be adequately educated academically (in a variety of interrelated disciplines), they should also demonstrate superior technical and behavioural skills, especially as they are expected to express their professional opinions on the performance, quality, governance and control of organisations. According to Dittenhofer, Ramamoorti, Ziegenfuss & Evans (2010:1) “integrity and credibility are foundational to the concept of behavioural dimensions of internal auditing”.

Based on the discussions and arguments above, the state of work-readiness of internal auditors in the context of internal audit educational expectations that employers might have of entering trainee internal auditors, is conceptualised in the following section.

2 WORK-READINESS

The current fast-paced technology-driven age has resulted in the importance of ‘graduateness’ and ‘employability’ of university students being increasingly recognised (Coetzee 2012; Griessel & Parker 2009; Noe, Tews & Dachner 2010). University graduates are furthermore faced with escalating challenges (apart from the accelerating rate of technological change), such as declining employment opportunities and decreasing job security. Nowadays, in addition to the challenges they face, internal auditors are expected to take personal responsibility for their capabilities and to stay abreast of these changes – by embracing the idea of lifelong learning (Marock 2008; Pool & Sewell 2007). The inculcation of these capabilities that form the ‘armour’ of a university graduate (which define graduateness) is an imperative objective of formal educational programmes (Barrie 2004).

Work-readiness is a component of the graduateness of a student (Coetzee 2012). Work-readiness thus encompasses a sense of “self-directedness”, or the ability to recognise one’s “personal agency” in acquiring and keeping employment (Coetzee 2012). Schreuder & Theron (2002) assert that organisations’ sustainability is largely dependent on the quality and abilities of appropriately skilled and competent staff. As an integral part of the organisational hierarchy, similar skills requirements exist for internal auditing – especially in the light of role expectations in the combined assurance arena (Deloitte 2011). Employer organisations of recently graduated trainee internal auditors thus expect a degree of work-readiness to be imposed on graduates through their university education.

Expectations in respect of the work-readiness of internal audit graduates (expressed in the outcomes that are demanded from their educations) are thus increasing. According to Zinser (2003) the emphasis of educational programmes should be placed on “...better preparing graduates for the workplace”, and that graduates should possess basic career skills in order to effectively function in the workplace.

Upon realising the low level of work-readiness that graduates possess on leaving university, the RSA Government introduced legislation that led to the establishment of the Sector Education and Training Authorities (SETAs). SETAs are instituted in terms of the Skills Development Act, 1998 (Act No. 97 of 1998) and the Skills Development Levies Act, 1999 (Act No. 9 of 1999). SETAs have a singular function: to oversee and facilitate skills and competence development within the RSA. Different SETAs have been instituted for specific business or economic sectors in the RSA (RSA 1998; RSA 1999; FASSET 2013).

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No. 9 of 1999). SETAs have a singular function: to oversee and facilitate skills and competence development within the RSA. Different SETAs have been instituted for specific business or economic sectors in the RSA (RSA 1998; RSA 1999; FASSET 2013).

The Finance, Accounting, Management Consulting and other Financial Services SETA (FASSET) developed their vision statement (quoted in full below), which emphasises their role with regard to promoting the work-readiness capabilities of graduates of all institutions offering training in financial disciplines, and by extension, the work-readiness of entering trainee internal auditors (FASSET 2013):

“To influence the effective operation of the labour market, through effective skills development, so as to ensure the appropriate supply of competent labour necessary to compete in the global economy.”

In order to give effect to the above vision statement, FASSET (in accordance with the Skills Development Act, 1998 (Act No. 97 of 1998) adopted several interventions to improve the work-readiness of university graduates in the RSA (FASSET 2013). These steps, taken by the South African Government, prove that the work-readiness of graduates, including internal audit graduates, obtaining their qualifications through the South African educational system, is significantly deficient.

According to the CBOK 2010 study internal auditors should possess specific competencies and skills (Bailey 2010). In parallel and independently, FASSET developed a work-readiness programme also identifying a number of skills that are required in order to be work-ready (FASSET 2013), and the Internal Auditor Competency Framework of the IIA (IIA 2013:1) suggests further skills and capabilities internal auditors should possess.

The design of the questions in the research instrument is based on a combination of the competencies and skills taken from the above three resources (CBOK 2006 and CBOK 2010, and FASSET’s work-readiness programme).

Continuing the discussion initiated above, the following section describes the educational system in the RSA.

3 HIGHER EDUCATION IN THE RSA

Universities in the RSA are governed by the Higher Education Act, 1997 (Act No. 101 of 1997), the South African Qualifications Authority (SAQA), the Higher Education Qualifications Framework (HEQF), the Higher Education Qualification Sub-framework (HEQSF) and the National Qualifications Framework (NQF) (RSA 1997; CHE 2007; RSA 2007; RSA 2013).

In terms of the Higher Education Act, 1997 (Act No. 101 of 1997), a higher education institution can be defined as “…any institution that provides higher education on a full-time, part-time or distance basis and which is: a) established or deemed to be established under this Act; b) declared as a public higher education institution under this Act; and c) registered or conditionally registered as a private higher education institution under this Act” (Raju 2004; CHE 2004:11-12).

Before the reform of the South African educational system (initiated after the introduction of democracy in the RSA in 1994), higher education institutions either offered research-based qualifications (traditional universities) or technology-based qualifications (technikons) (Du Pré 2010:1-2; CHE 2004:10). Post democracy, and post reform higher education and training in the RSA is currently provided by 23 universities. Eleven of the 23 universities are traditional universities, six are comprehensive universities and six are Universities of Technology (Du Pré 2010:1-2).

As part of the restructuring of the educational system in the RSA, universities of technology and comprehensive universities were established. (Du Pré 2010:1). The HEQF (RSA 2007) and HEQSF (RSA 2013) permits all three types of university in the RSA (traditional universities, universities of technology and comprehensive universities) to offer conceptual or contextual (or a combination of these) educational programmes.

Comprehensive universities are designed to offer both contextual and conceptual educational programmes (RSA 2007; RSA 2013). Traditional universities in the RSA are better known for their research-based educational programmes. Universities of technology on the other hand, are focussing mainly on vocational type educational programmes – providing practice-based education. Theoretically, universities of technology (former technikons) in the RSA are in the best position to offer vocational educational programmes.

The education and preparation of aspiring internal auditors is regarded as vocational education. As mentioned above, in spite of the differences in the nature of the three university types, all three are permitted by South African legislation to offer vocational-type educational programmes.

For the purposes of this article, the responses of respondents with technikon type academic qualifications and those with university of technology academic qualifications have been combined into one group, identified as university of technology respondents. Comprehensive and traditional university respondents have been combined as the second group, identified as traditional universities. The two groups whose responses are being analysed in this article are thus traditional university respondents and universities of technology respondents.

Continuing the discussion, the following section defines the research question addressed in this article.

4 RESEARCH QUESTION

The research question addressed in this article revolves around the perceptions of the two groups...
of respondents identified above. Differences in the approaches (contextual or conceptual) of the universities offering internal audit education in the RSA could have an effect on the perceptions of respondent groups. Thus, the variations in perceptions in respect of work-readiness of entering trainee internal auditors could be related to the type of South African university the respondents attended. The research question addressed by this article is thus:

Do internal audit managers who qualified from different types of university have similar expectations in respect of work-readiness (technical and behavioural skills capabilities) of entering trainee internal auditors?

5 VALUE OF THE RESEARCH AND ITS LIMITATIONS

The results of this research would be useful to the IIA when considering internal audit educational curriculum guidance, specifically in respect of the different types of university found in the RSA. In addition, the results of the research might be useful to employers of recently graduated entering trainee internal auditors with regard to the type of skills capability they could expect from different types of universities in the RSA, and thus the types of tasks they could reasonably expect these trainees to perform immediately and with competence.

The results of this research are limited firstly because the analysis of data did not distinguish between residential, non-residential or distance learning universities. Secondly, the analysis of the data did not include the perceptions of the trainee internal auditors. In addition the analysis was restricted to internal auditor respondents with more than three years’ internal audit experience. The third limitation is that the research questionnaire did not obtain the perceptions of the internal audit educators employed at the different types of university. A final limitation is that the research findings and the analysis thereof presented in this article form part of a larger research project on possible internal audit educational expectation gaps in respect of the work-readiness of entering trainee internal auditors in the RSA.

The perceptions of the groups excluded from this research could be useful and are thus recommended as important participants in further research.

In the context of the research question, the following section outlines the research hypotheses of the article.

6 RESEARCH HYPOTHESES

In order to give effect to the research question above, the research of this article is guided by a research objective. The objective of this article is to determine whether a relationship exists between the type of university from which the respondents obtained their highest academic qualification and their perceptions of the technical skills and behavioural skills capabilities of their recently graduated trainee internal auditor employees.

Based on the objective of the research two hypotheses have been formulated. The first hypothesis (H0 (1) to H1 (1)) is based on the perceived technical skills capabilities of entering trainee internal auditors. The second hypothesis (H0 (2) to H1 (2)) is based on the perceived behavioural skills capabilities of these recently graduated trainee internal auditors. The rejection (significance) level of the hypotheses is set at 0.05. The hypotheses addressed in this article are formulated as follows:

H0 (1): No relationship exists between internal audit educational expectation gaps regarding technical skills and types of university from which internal audit manager respondents graduated.

H0 (1) > 0.05

H1 (1): A relationship exists between internal audit educational expectation gaps regarding technical skills and types of university from which internal audit manager respondents graduated.

H1 (1) < 0.05

H0 (2): No relationship exists between internal audit educational expectation gaps regarding behavioural skills and types of university from which internal audit manager respondents graduated.

H0 (2) > 0.05

H1 (2): A relationship exists between internal audit educational expectation gaps regarding behavioural skills and types of university from which internal audit manager respondents graduated.

H1 (2) < 0.05

The research methodology used in researching this article is described in the following section.

7 RESEARCH METHODS AND DESIGN

The results generated by this research have been obtained through an extensive review of related published literature and quantitative empirical research. The literature review was performed to ensure that published research is not duplicated and also to obtain the most recent theory about matters pertaining to the field of research. In addition, published literature was consulted to determine what the latest results in this field of study are and to acquire the most recent and relevant definitions of key concepts in the context of this research (Mouton, 2001:87). Further literature was reviewed to identify appropriate statistical analysis techniques needed to ensure the research validity and reliability.

Based on the nature of the research question and the associated objective of the article, the research methodology used in this article consists of non-experimental quantitative descriptive methods. A quantitative research questionnaire was distributed to the population of the research study in the form of an e-survey.
7.1 Population of the research

The membership database of the IIA (SA) (those whose membership fees were paid up to date, but excluding educator and student members) was chosen as the population on which the empirical component of the article is based. The IIA (SA) membership database includes potential participants from each of the designated internal auditor levels in the IIA’s internal auditor competency framework, namely: internal audit staff, internal audit managers and CAEs (IIA 2013:1).

The research questionnaire was distributed to the entire IIA (SA) membership database (the population), with the exclusion of internal audit educators and student members. A total of 148 responses were received from the population. However, only the responses obtained from internal auditors with more than three years’ internal audit experience and from Chief Audit Executives (CAEs) (114 responses) were used in the analysis of the results in this article. These respondents (hereafter referred to as internal audit managers) were regarded as being in the best position to provide valuable and reliable information based on their real life experiences with recently graduated trainee internal auditors.

7.2 Research instrument (questionnaire)

The information obtained in respect of the developments in the internal audit profession and internal audit education was taken into consideration in the design of the questionnaire and the formulation of the research items. The research instrument used in this research includes different response-type questions.

Section A of the questionnaire obtained demographic information about respondents, and was used to identify the types of university where internal audit manager respondents obtained their highest academic qualification. Section B of the questionnaire obtained the views of respondents regarding their desires in respect of their trainees’ competences in the two skills categories under investigation in this article.

The research questions in Section B were formulated according to a combination of skills categorised as either technical or behavioural skills. The technical and behavioural skills identified for analysis for this article were obtained after analysing the content of (1) the CBOK 2010 skills and competence categories; (2) the IIA’s IACF core competencies and (3) the behavioural and technical skills identified in the FASSET work-readiness programme (Bailey 2010; IIA 2013:1; Fasset 2013). The six point Likert-type scale questions of the questionnaire obtained respondents’ perceptions of their work-readiness expectations of entering trainee internal auditors. Respondents could choose from the following options: ‘0% capability’, ‘20% capability’, ‘40% capability’, ‘60% capability’, ‘80% capability’ and ‘100% capability’.

Respondents were requested to indicate the expected level of capability as well as the actual level of capability that entering internal audit trainees possess when starting their internal audit careers. These responses were used to determine the difference between mean expected and mean actual capabilities. These mean differences represent the work-readiness expectation gap which this article’s research question investigates.

The questionnaire was distributed electronically with the assistance of the IIA (SA). An e-mail message containing a Unique Resource Locater-link (URL-link) was sent to all IIA (SA) members. Participants were able to fill in the questionnaire on-line and responses were recorded automatically. Responses were then downloaded into an electronic spread sheet for data cleaning, after which IBM SPSS statistical software (IBM SPSS 2013) was used to statistically analyse the data.

The following section provides a statistically founded presentation of the findings of the research.

8 FINDINGS

The findings arising from this research are presented in two sections, namely technical skills capabilities and behavioural skills capabilities. The first section addresses the first hypothesis of the article, while the second section is based on the second hypothesis. The two categories of skills (technical and behavioural skills) are divided into constructs (themes). For each construct the expected and the actual levels of capability, as perceived by internal audit managers, are reported. Based on these capability levels the difference (expectation gap) is determined. Tables 1 and 3 also show the significance of the difference and the score of Cohen’s d, which is used to determine the effect-size of the significant differences. In addition, the Cronbach’s Alpha score is reported in order to show the internal consistency and reliability of the results obtained by means the Likert-type scale questions used in the questionnaire.

In order to determine the significance of the differences between the perceptions of traditional university and university of technology graduate respondents, paired sample t-tests were performed on the mean differences (expectation gaps) as perceived by internal audit managers from the two respondent groups in respect of technical and behavioural skills. IBM SPSS was used to perform the paired sample t-tests. Tables 2 and 4 depict the results of the paired sample t-tests.

8.1 Technical skills capabilities

The technical skills category, for which the findings are presented in Table 1 below, is divided into the 8 constructs (themes) shown. Table 1 further illustrates the significance of the mean differences between the expected and actual levels of skills capability as perceived by internal audit managers. The mean differences reported are significant (p < 0.001), with ‘large’ effect-sizes, except for the ‘Legislation’
construct, for which a ‘medium’ effect-size was recorded.

Internal audit managers reported the largest expectation gap (mean difference) score for ‘internal audit tools and techniques’ (23.7), followed by ‘risk related skills’ (21.3) and ‘types of auditing’ (19.2). The internal audit educational expectation gap (mean difference = 18.9) reported for technical skills is significant (p < 0.001) with a ‘large’ effect-size. The Cronbach’s Alpha levels (0.92 and 0.94 respectively) show a high level of internal consistency and reliability in respect of the Likert-type scale questions used to obtain the data for these constructs.

Table 1: Technical skills – expected and actual skills capabilities - as perceived by internal audit managers

<table>
<thead>
<tr>
<th>Technical skills</th>
<th>Level of capability</th>
<th>Significance of difference (p)</th>
<th>Cohen’s ( d )</th>
<th>Effect-size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Expected (E)</td>
<td>Actual (A)</td>
<td>Difference (E - A)</td>
<td></td>
</tr>
<tr>
<td>Accountancy related skills</td>
<td>53.2%</td>
<td>34.7%</td>
<td>18.5</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Types of Auditing</td>
<td>55.5%</td>
<td>38.8%</td>
<td>16.2</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Risk related skills</td>
<td>61.1%</td>
<td>37.9%</td>
<td>23.2</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Knowledge areas</td>
<td>56.5%</td>
<td>39.2%</td>
<td>17.3</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Management skills</td>
<td>45.3%</td>
<td>31.6%</td>
<td>13.7</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Legislation</td>
<td>45.8%</td>
<td>27.8%</td>
<td>18.0</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Internal audit tools and techniques</td>
<td>53.3%</td>
<td>29.6%</td>
<td>23.7</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Tax related knowledge areas</td>
<td>53.7%</td>
<td>36.0%</td>
<td>17.7</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Mean</td>
<td>53.1%</td>
<td>34.1%</td>
<td>18.9</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>16.2%</td>
<td>17.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cronbach’s Alpha</td>
<td>0.92</td>
<td>0.94</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 depicts the results of the paired sample t-test for technical skills by type of university. On average, the difference between the perceptions of traditional university respondents and university of technology respondents is not significant (p > 0.05). However, when considering the constructs separately, significant differences are shown.

Significant differences (p < 0.05) are reported for ‘accountancy related skills’, ‘types of auditing’, ‘risk related skills’, ‘knowledge areas’ and ‘tax related knowledge areas’. The highest mean difference (11.4) is reported in respect of ‘knowledge areas’, followed by ‘risk related skills’ (11.2) and ‘tax related knowledge areas’ (11.1). In respect of ‘management skills’, ‘legislation’ and ‘tools and techniques’, the two respondent groups shared similar views in respect of the work-readiness of recently graduated trainee internal auditors.

Table 2: Paired sample T test for technical skills by type of university

<table>
<thead>
<tr>
<th>Technical skills</th>
<th>Mean difference</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>df (n-1)</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Upper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accountancy related skills</td>
<td>9.3</td>
<td>19.2</td>
<td>3.5</td>
<td>2.2</td>
<td>16.5</td>
<td>p = 0.012</td>
</tr>
<tr>
<td>Types of auditing</td>
<td>7.7</td>
<td>18.4</td>
<td>3.4</td>
<td>0.8</td>
<td>14.5</td>
<td>p = 0.030</td>
</tr>
<tr>
<td>Risk related skills</td>
<td>11.2</td>
<td>22.1</td>
<td>4.0</td>
<td>2.9</td>
<td>19.4</td>
<td>p &lt; 0.001</td>
</tr>
<tr>
<td>Knowledge areas</td>
<td>11.4</td>
<td>21.3</td>
<td>3.9</td>
<td>3.4</td>
<td>19.4</td>
<td>p &lt; 0.007</td>
</tr>
<tr>
<td>Management skills</td>
<td>9.1</td>
<td>30.9</td>
<td>5.7</td>
<td>-2.4</td>
<td>20.7</td>
<td>p = 0.118</td>
</tr>
<tr>
<td>Legislation skills</td>
<td>4.3</td>
<td>29.0</td>
<td>5.3</td>
<td>-6.5</td>
<td>15.2</td>
<td>p = 0.420</td>
</tr>
<tr>
<td>Tools and techniques</td>
<td>20.6</td>
<td>10.5</td>
<td>5.1</td>
<td>-9.9</td>
<td>10.9</td>
<td>p = 0.022</td>
</tr>
<tr>
<td>Tax related skills</td>
<td>11.1</td>
<td>2.6</td>
<td>4.9</td>
<td>1.2</td>
<td>21.1</td>
<td>p = 0.030</td>
</tr>
<tr>
<td>Mean</td>
<td>8.1</td>
<td>24.4</td>
<td></td>
<td>p = 0.194</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In spite of the significant differences reported for five of the eight constructs listed in Table 1, the mean difference in respect of technical skills (8.1) is not significant (p = 0.194). Based on the above results, the first null-hypothesis is thus true (\( H_0 (1) > 0.05 \)). No relationship thus exists between the perceived internal audit educational expectation gaps for technical skills and the types of university where internal audit manager respondents obtained their highest academic qualifications.

The following section provides statistically based analyses and interpretations of the findings with regard to behavioural skills competencies of entering trainee internal auditors.

8.2 Behavioural skills capabilities

The behavioural skills category, according to which the findings below are presented, are divided into constructs (themes) as shown in Table 3.

Table 3 also illustrates the significance of the differences between the expected and actual levels of behavioural skills capability as perceived by internal audit managers. The mean differences reported for the two constructs are significant (p < 0.001) with ‘large’ effect-sizes.

Internal audit managers reported the largest expectation gap (mean difference) score (25.2) for ‘inter-personal skills’ capabilities. The [personal]
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‘characteristics’ construct has a significant (p < 0.001) mean difference score of 22.8 resulting in a ‘large’ effect-size. High Cronbach’s Alpha scores (> 0.8) were also calculated, indicating a high level of internal consistency and reliability of the data contained in Table 3.

Table 3: Behavioural skills – expected and actual skills capabilities - as perceived by internal audit managers

<table>
<thead>
<tr>
<th>Behavioural skills</th>
<th>Expected (E)</th>
<th>Actual (A)</th>
<th>Difference of means (E - A)</th>
<th>Significance of difference (p)</th>
<th>Cohen’s d</th>
<th>Effect-size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inter-personal skills</td>
<td>67.9%</td>
<td>42.7%</td>
<td>25.2</td>
<td>&lt; 0.001</td>
<td>1.28</td>
<td>Large</td>
</tr>
<tr>
<td>Characteristics</td>
<td>70.1%</td>
<td>47.3%</td>
<td>22.8</td>
<td>&lt; 0.001</td>
<td>1.12</td>
<td>Large</td>
</tr>
<tr>
<td>Mean</td>
<td>69.0%</td>
<td>45.0%</td>
<td>24.0</td>
<td>&lt; 0.001</td>
<td>1.26</td>
<td>Large</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>18.1%</td>
<td>20.4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronbach's alpha</td>
<td>0.93</td>
<td>0.94</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 presents the results of the paired sample t-test for behavioural skills by type of university. Although the expectation gaps in respect of the two behavioural skills constructs are significant (refer to Table 3), the (mean) differences between the perceptions of traditional university and university of technology respondents in respect of the perceived mean internal audit educational expectation gaps are not significant (p > 0.05 where α = 0.05). The respondents from the two university types thus share similar views in respect of the behavioural skills capabilities of entering trainee internal auditors.

Table 4: Paired sample t-test for behavioural skills by type of university

<table>
<thead>
<tr>
<th>Behavioural skills</th>
<th>Mean difference</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>df (n-1)</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inter-personal skills</td>
<td>6.8</td>
<td>33.9</td>
<td>6.2</td>
<td>(-5.9, 19.4)</td>
<td>29</td>
<td>p = 0.282</td>
</tr>
<tr>
<td>Characteristics</td>
<td>8.8</td>
<td>36.6</td>
<td>6.7</td>
<td>(-4.8, 22.5)</td>
<td>29</td>
<td>p = 0.197</td>
</tr>
<tr>
<td>Mean</td>
<td>7.8</td>
<td>35.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the evidence contained in the findings in respect of behavioural skills capabilities reported above, the second null-hypothesis (H0 (2)) is true (rejection level = 0.05).

The following section presents the conclusions based on the findings of the research reported above.

9 CONCLUSIONS

The objective of the research reported in this article is to determine whether a relationship exists between the type of university where respondents obtained their highest academic qualification and their perceptions in respect of technical skills and behavioural skills capabilities of recently graduated trainee internal auditors. The objective is addressed by two hypotheses. The first hypothesis tested the relationship in respect of the technical skills capabilities, while the second hypothesis focussed on the behavioural skills capabilities of entering trainee internal auditors.

In respect of technical skills capabilities, it can be concluded that statistically large significant differences exist between the perceived mean expected levels of capability and the perceived actual levels of capability. An internal audit educational expectation gap thus exists in respect of the technical skills capabilities of entering trainee internal auditors.

In addition, an internal audit educational expectation gap exists with regard to the perceived mean expected and actual behavioural skills capabilities of recently graduated trainee internal auditors. This conclusion is based on the statistically large significant mean differences between the expected and actual levels of capability in respect of the behavioural skills category. The author of this article therefore concludes that a significant, statistically large overall internal audit educational expectation gap exists in respect of the knowledge and skills provided to aspirant trainee internal auditors by universities, compared to the expectations of internal audit managers in the RSA.

For the first hypothesis, the null-hypothesis is true (H0 (1) > 0.05). It is thus concluded that a relationship does not exist between the types of university where respondents obtained their highest academic qualification and their perceived desire insofar as technical skills capabilities of entering trainee internal auditors is concerned.

With regard to the second hypothesis, the null-hypothesis is true (H0 (2) > 0.05). According to this finding, it can be concluded that a relationship does not exist between the type of university where respondents obtained their highest academic qualification and the perceived internal audit educational expectation gap in respect of behavioural skills capabilities of recently graduated trainee internal auditors.

The conclusions presented above show that the type of university where internal audit managers obtained their qualifications, namely traditional universities or universities of technology, does not have a statistically significant effect on the perceptions of these respondents with regard to technical and
behavioural skills capabilities of recently graduated trainee internal auditors. It can thus be deduced that the curricula of internal audit educational programmes of the three types of university in the RSA (universities of technology, traditional universities and comprehensive universities) are similar in respect of the level of technical and behavioural skills capabilities provided to entering trainee internal auditors.

ENDNOTE

1 This study’s questionnaire, in which the constructs referred to here were utilised in the collection of the research data, is not included in this article due to its size, but is available on request from the authors.

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IIA see Institute of Internal Auditors

IIARF see Institute of Internal Auditors Research Foundation

IOD see Institute of directors.


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