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A CONCEPTUAL FRAMEWORK FOR INTERNAL AUDITING:

AN EMPIRICAL EXAMINATION OF THE PERCEPTION AND PRACTICE

OF INTERNAL AUDITING - EGYPT AS A FIELD OF STUDY

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LIST OF ABBREVIATIONS USED

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| AAA | American Accounting Association |
|-------|--|
| ACB | Accounting Control Boards |
| AICPA | American Institute of Certified Public accountants |
| C&AG | Comptroller and Auditor General |
| CAO | Central Auditing Organisation (Egypt) |
| E&AD | Exchequer and Audit Department |
| EGOP | Egyptian General Organisation of Petroleum |
| EICA | Egyptian Institute of Chartered Accountants |
| FASB | Financial Accounting Standards Board |
| GAO | General Accounting Office (USA) |
| ICAEW | Institute of chartered Accountants in England and |
| | Wales |
| IIA | Institute of Internal Auditors |
| NAO | National Audit Office (UK) |
| SAO | State Auditing Office |
| UK | The United Kingdom of Great Britain and Northern |
| | Ireland |
| USA | United States of America |
| VFM | Value For Money |

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CHAPTER SEVEN

7. SIGNIFICANT INTER-SECTOR DIFFERENCES IN THE PERCEPTION OF INTERNAL AUDITING

This chapter looks at the first research hypothesis which proposes that the perception of internal auditing would vary according to the sector in which the respondents work. The objective here is to analyse whether the perception of internal audit as held by internal auditors working in the public sector would be different from the perception held by internal auditors working in the private sector. This hypothesis was built on the assumption that there is a difference in the levels of organisational and professional commitment between internal auditors in the public and private sectors. And the difference in the working conditions and remuneration in the two sectors, in addition to the existence of standards and guidelines on internal audit in the public sector which is not necessarily available to all internal auditors working in the private sector. These differences would affect the way internal auditors perceive their profession.

The analysis carried out here is to test if there are any significant differences between the perception of the conceptual framework between auditors in the public sectors and their counterparts in the private sector. Tables 7.1-7.4 show the results of the analysis of both the non-parametric test of Mann-Whitney and the parametric test of T-test. This analysis was carried out on the scores

of the 21 factors that were derived using factor analysis as explained in the previous chapter. Each of these factors represents an element of the conceptual framework for internal auditing. Tables 7.1-7.3 show the results of the analyses of the scores of each of the three types of the research groups within each of the sectors with the corresponding group in the other sector. Table 7.4 shows the results of the analyses on the scores of all respondents in the public sectors against all respondents in the private sector.

The analysis of the perception of the individual elements of the conceptual framework would then be followed by analysis of the difference in the perception of the four main components of the conceptual framework, as well as the overall perception of the framework. However, in this case the use of the non-parametric Mann-Whitney test and the parametric T-test were not appropriate since there were no statistical evidence of underlying dimensions correlating the different elements forming each of the four components. Therefore the analysis of the perception on the four components as well as the overall response would be carried out using the multivariate data analysis techniques of MANOVA Hotelling Trace and Wilks Lambda tests with the support of using univariate F-distribution to explain the results obtained from MANOVA.

The use of multivariate analysis is a must since it is unrealistic to assume that a difference between any two groups will be revealed only in a single dependent variable. [Hair, Anderson, Tatham and Black, 1995] The multivariate approach

was preferred to the approach followed by many researchers when handling this multiple-criteria situation by repeated application of univariate T-test until all of the dependent variables have been analysed. The latter approach has two major deficiencies: first, repeated T-tests leave us without control of our effective type 1 error; second, a series of T-tests also ignore the possibility that some linear combination of the dependent variables may provide evidence of an overall group difference that may go undetected by separately examining each variable. Multivariate analysis solves the first problem by providing a single overall test of group differences across all dependent variables at a specified α level. It solves the second problem by ensuring linear combination of the dependent variables.

7.1 Perceptual Differences on the Different Elements of Conceptual Framework

7.1.1 Significant inter-sector Mann-Whitney differences for the individual groups

The results of the non-parametric Mann-Whitney test as shown in table 7.1 reveal a significant difference between internal auditors (i.e. the first of the three levels of auditors and not internal auditors in general) in the public sectors and their counterparts in the private sector. There are significant differences between the two groups on 17 of the 21 elements, with 15 of the 17 elements significant at 99%. The remaining

four aspects of the conceptual framework which did not invoke any significance are those concerned with the definition and objective of internal auditing, selecting the auditor, following up the audit report, and quality assurance.

Looking at the two groups of senior internal auditors / internal auditor managers the results of the Mann-Whitney test reveal significant differences on 17 out of the 21 elements with 12 out of the 17 were significant at 99%. The four elements where there were no significant differences are those concerned with field work, audit measures, membership of the IIA and environmental responsibilities.

On the other hand, the groups of chief internal auditors showed fewer significant differences than the other research groups since the differences between the group of chief internal auditors in the public sector and the corresponding group in the private sector include only 11 significant differences under the Mann-Whitney test. Meanwhile, there were no significant differences shown on the perception of the aspects relating to: definition & objective of internal auditing, scope of audit work, common concepts, selecting the auditor, planning the audit, reporting findings and recommendations, follow-up, membership of the IIA, relationship with external auditors (co-operation), and environmental responsibilities.

TABLE (7.1)¹ PERCEPTION PUBLIC SECTOR VS PRIVATE SECTOR MANN-WHITNEY

| VARIABLE | PUA Vs PRA | PUM Vs PRM | PUC Vs PRC |
|---|------------|------------|------------|
| Definition & Objective of Internal Auditing | 1864.5 | 507*** | 372.5 |
| Scope of Audit Work | 966*** | 554*** | 427.5 |
| Common Concepts | 1546.5*** | 848.5** | 419 |
| Planning the Audit (Selecting the Auditee) | 1056*** | 817.5** | 293** |
| Planning the Audit (Selecting the Auditor) | 1865.5 | 742*** | 340 |
| Planning the Audit (Setting the Time, Objective & Scope, Preliminary Survey, Audit Programme) | 1487*** | 676.5*** | 337 |
| Field Work | 604*** | 948.5 | 304.5** |
| Reporting Findings & Recommendations | 1608** | 232*** | 422.5 |
| Follow-up | 1823.5 | 601.5*** | 350.5 |
| Audit Measures | 1319*** | 1103 | 338** |
| Organisational Status | 97*** | 375*** | 62*** |
| Membership of the IIA | 1673.5*** | 1076 | 322* |
| Staffing, Training & Development | 982*** | 584 *** | 287.5** |
| Establishing Plans, Rules & Policies | 643*** | 764** | 176*** |
| Relationship with Auditees | 612*** | 219*** | 148.5*** |
| Relationship with Auditees (and the audit report) | 115*** | 350.5*** | 188.5*** |
| Audit Committee | 1497*** | 566.5*** | 258*** |
| Quality Assurance | 2078.5 | 772.5*** | 262.5*** |
| Relationship with External Auditors (General) | 476*** | 183.5*** | 95.5*** |
| Relationship with External Auditors (Co-operation) | 312.5*** | 364*** | 424 |
| Environmental Responsibilities | 1722.5** | 993 | 406.5 |

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- ** Significant @ 95%
- * Significant @ 90%

PUA / PRA = Public / Private Sector Internal Auditors

PUM / PRM = Public / Private Sector Senior Internal Auditors

PUC / PRC = Public / Private Sector Chief Internal Auditors

<u>Key:</u> *** Significant @ 99%

7.1.2 Significant inter-sector T-test differences for the individual groups

It is apparent from table 7.2 that the parametric T-test gives similar results for the internal auditors groups with significant differences on 17 elements. However, there is one change from the Mann-Whitney results; the T-test reveals a significant difference in the perception of the element relating to selecting the auditor. Furthermore, the elements regarding the audit report and recommendations, and environmental responsibilities - that showed significant differences under the Mann-Whitney test - show no significant differences under the T-test. Also, the aspect of following up audit recommendations has revealed a significance at 90%. The remaining two elements have remained unchanged and still insignificant under the T-test.

As to the senior internal auditors / internal audit managers, the results obtained from the T-test were consistent with the Mann-Whitney test. The only change was that 15 out of the 17 were significant at 99%.

However, when it comes to the two groups of chief internal auditors the results of the T-test show only 9 elements with significant differences, with three aspects that were significant under the Mann-Whitney showing no significant differences under the T-test. These aspects are: field work; staffing, training and development; and establishing plans, rules and policies. The element regarding the

process of selecting the auditor, that showed no significant difference under the Mann-Whitney test, shows significant difference under the T-test. But the remaining elements that showed no significant differences under the Mann-Whitney test have the same result with the T-test.

TABLE (7.2)1PERCEPTIONPUBLIC SECTOR VS PRIVATE SECTORT-TEST

| VARIABLE | PUA Vs PRA | PUM Vs PRM | PUC Vs PRC |
|---|------------|------------|------------|
| Definition & Objective of Internal Auditing | 0.42 | 4.79*** | 1.43 |
| Scope of Audit Work | -5.90*** | -5.30*** | 0.21 |
| Common Concepts | -3.90*** | 2.26** | -0.04 |
| Planning the Audit (Selecting the Auditee) | -5.35*** | -3.53*** | -2.60** |
| Planning the Audit (Selecting the Auditor) | -3.21*** | -4.85*** | -2.89*** |
| Planning the Audit (Setting the Time, Objective & | -2.09** | 3.09*** | 1.10 |
| Scope, Preliminary Survey, Audit Programme) Field Work | -9.62*** | -0.06 | 1.36 |
| Reporting Findings & Recommendations | -1.54 | -9.23*** | 0.01 |
| Follow-up | 1.74* | -4.81*** | 1.26 |
| Audit Measures | -4.64*** | -1.23 | 2.05** |
| Organisational Status | -16.06*** | -7.31*** | -6.68*** |
| Membership of the IIA | 3.08*** | -1.06 | 1.17 |
| Staffing, Training & Development | -5.36*** | -4.94*** | -1.83* |
| Establishing Plans, Rules & Policies | -8.18*** | 2.38** | -4.57*** |
| Relationship with Auditees | -8.24*** | -9.22*** | -5.64*** |
| Relationship with Auditees (and the audit report) | -15.72*** | -8.29*** | -3.55*** |
| Audit Committee | -4.11*** | -5.79*** | 2.69*** |
| Quality Assurance | 1.21 | 2.52** | 2.90** |
| Relationship with External Auditors (General) | -10.56*** | -10.11*** | -6.29*** |
| Relationship with External Auditors (Co-operation) | -13.47*** | -7.56*** | -0.66 |
| Environmental Responsibilities | 1.78* | -0.75 | -0.97 |

¹ Key:

* Significant @ 90%

PUA / PRA = Public / Private Sector Internal Auditors

PUM / PRM = Public / Private Sector Senior Internal Auditors

PUC / PRC = Public / Private Sector Chief Internal Auditors

^{***} Significant @ 99%

^{**} Significant @ 95%

Thus, it could be concluded from the results of both the parametric and non parametric tests that, in general, the first two levels of internal auditors in the public sector hold a perception of the profession, that differs significantly from the perception held by auditors at the same levels from the private sector. At the highest level of auditors there was also significant difference in the way respondents from the two sectors generally perceived internal audit but the number of significant differences between chief internal auditors from the two sectors was fewer than in the case of the other two levels.

This leads us to conclude that the perception of internal auditing varies significantly between internal auditors working in the public and private sectors. It is apparent that the difference exists at all three levels of auditors but it was also found that the two groups of chief internal auditors share a similar perception of more aspects of the conceptual model than at the first two levels. This could be due to the higher degree of experience and professional commitment among chief internal auditors. The reasons behind every significant difference at all three levels are examined later in this chapter when the results of all statistical tests are taken into consideration. Meanwhile, the findings of the first tests reveal a relationship between the sector in which internal auditors work and the manner in which they perceive the internal audit profession. Thus, there is evidence that the null hypothesis proposing

no significant difference in the perception of internal auditing between the two sectors could not be accepted.

7.1.3 Significant inter-sector ANOVA differences for the individual groups

Having analysed the response of the different groups using the Mann-Whitney and T-test it would be of great importance to examine the difference between these groups using the analysis of variance technique (ANOVA), this analysis was done using the advanced statistics option in the Statistics Package for Social Scientist (SPSS/win). Table 7.3 shows the results of the analysis of the response of the six groups representing respondents from both sectors at each of the three levels. First, it could be seen from the table that the two groups of internal auditors representing the first level of auditors have showed significant differences in the way they perceive 15 out of the 21 factors that form the framework. The factors that showed similar perception were: definition & objective of internal audit; reporting findings and recommendations; quality assurance; relationship with external auditors (co-operation); and environmental responsibilities.

Second, in the case of the middle level of internal auditors represented by the two groups of senior internal auditors, the two groups from the two sectors also showed significant perceptual differences in 15 out of 21 factors that make up the framework. Only six factors showed no

significant difference in the way they are perceived by the two groups. These were the factors regarding the common concepts, field work, audit measures, membership of the IIA, establishing plans rules and policies, and environmental responsibilities.

Finally, the two groups of the chief internal auditors that represented the top levels of auditors revealed significant differences between the public and private sectors in 10 out of the total 21 factors. Thus, it is apparent that chief internal auditors from the two sectors have a similar perception of at least 50% of the factors that make the framework.

Again, the results of the F-test confirm the results obtained from the parametric and non-parametric tests and also lead to the conclusion that in general internal auditors at all three levels have significantly different perception of internal auditing. This perception seems to vary significantly between the public and private sectors. This would mean that the sector the auditors are working in could have a significant effect on the way auditors perceive their profession. However, this effect seems to get lower as the level of auditors gets higher, as it was seen chief internal auditors in the two sectors only differ in perceiving about 50% of the factors that make up the conceptual model.

TABLE (7.3)¹ **PERCEPTION** PUBLIC SECTOR VS PRIVATE SECTOR **ANOVA F-TEST**

| VARIABLE | PUA Vs PRA | PUM Vs PRM | PUC Vs PRC |
|---|--------------|------------|------------|
| Definition & Objective of Internal Auditing | 0.132 | 30.440*** | 2.050 |
| Scope of Audit Work | 34.782*** | 28.139*** | 0.042 |
| Common Concepts | 10.961*** | 3.885* | 0.002 |
| Planning the Audit (Selecting the Auditee) | 35.186*** | 6.805*** | 6.285** |
| Planning the Audit (Selecting the Auditor) | 5.485** | 13.322*** | 7.200*** |
| Planning the Audit (Setting the Time, Objective & Scope, Preliminary Survey, Audit Programme) | 4.359** | 9.537*** | 1.220 |
| Field Work | 52.035*** | 0.002 | 1.843 |
| Reporting Findings & Recommendations | 3.063* | 55.077*** | 0.000 |
| Follow-up | 3.612* | 15.425*** | 1.590 |
| Audit Measures | 25.680*** | 0.989 | 4.769** |
| Organisational Status | _ 149.080*** | 29.162*** | 38.758*** |
| Membership of the IIA | 13.655*** | 0.611 | 1.375 |
| Staffing, Training & Development | 28.762*** | 18.396*** | 3.351* |
| Establishing Plans, Rules & Policies | 92.365*** | 3.548* | 20.911*** |
| Relationship with Auditees | 46.929*** | 62.152*** | 28.268*** |
| Relationship with Auditees (and the audit report) | 151.291*** | 39.555*** | 12.619*** |
| Audit Committee | 11.359*** | 18.461*** | 7.262*** |
| Quality Assurance | 1.475 | 6.375** | 9.407*** |
| Relationship with External Auditors (General) | 66.007*** | 64.786*** | 34.744*** |
| Relationship with External Auditors (Co-operation) | 154.887 | 39.440*** | 0.393 |
| Environmental Responsibilities | 1.564 | 0.319 | 0.884 |

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¹<u>Key</u>: *** Significant @ 99%

^{**} Significant @ 95%

^{*} Significant @ 90%

PUA / PRA = Public / Private Sector Internal Auditors

PUM / PRM = Public / Private Sector Senior Internal Auditors

PUC / PRC = Public / Private Sector Chief Internal Auditors

7.1.4 Significant inter-sector Mann-Whitney differences for all respondents

The results of the analysis of the response of all respondents in the public against all respondents in the private sector are shown in table 7.4. The table reveals 15 situations where there were significant differences in the perception of different aspects of the internal audit profession, with only six elements having no significant differences at all. These were: common concepts; planning the audit; follow-up; membership of the IIA; quality assurance; and environmental responsibilities. Note that three out of these six showed significant differences at 90%.

7.1.5 Significant inter-sector T-test differences for all respondents

The results of the T-test as shown in table 7.4 reveal some slight deviations from the results obtained using the Mann-Whitney test. First, the number of the cases with significant differences had increased from 15 to 16. The additional elements that showed significant differences were common concepts and quality assurance that were only significant at 90% under the Manŋ-Whitney test but with T-test were significant at 95%. However, the variable regarding the definition & objective of internal auditing which was significant under the Mann-Whitney test, shows no significant difference under the T-test where the rest of the results remained exactly the same.

7.1.6 Significant inter-sector ANOVA differences for all respondents

Table 7.4 shows the result of the ANOVA F-ratio test performed on the response from all respondents in the public sector against all respondents in the private sector. The table reveals that there are significant differences between practitioners from the two sectors in 17 out of 21 factors that make up the conceptual framework. Only four factors revealed no significant perceptual differences between auditors from the two sectors. These factors were the ones regarding the definition and objective of internal auditing, planning the audit, follow-up, and environmental responsibilities of internal audit.

It is quite clear from these results that internal auditors working in the public sector generally perceive their profession in a significantly different manner from their counterparts in the private sector. This could be seen from the significant perceptual differences revealed on most of the different aspects, though there are some aspects that revealed similarity in perception between the groups of auditors from the two sectors. It is noted that the differences were lowest in the case of chief internal auditors, suggesting more similarities in the perception of internal auditing at the highest level of internal auditors than at the first two levels. Nonetheless, there seems to be agreement between all groups on the perception of the aspects regarding: the definition and objective of internal audit; planning the audit; following up the audit

recommendations; and the environmental responsibilities of internal audit.

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Therefore, it could be concluded that, in general, the perception of internal auditing as held by internal auditors seems to be affected by the kind of sector they are working in. Thus, the difference in the sector seems to result in a significant difference in the perception of internal auditing.

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TABLE (7.4)¹PERCEPTIONPUBLIC SECTOR VS PRIVATE SECTORALL RESPONDENTSMANN-WHITNEY, T-TEST & ANOVA F-TEST

| VARIABLE | M-W | T-TEST | F-TEST |
|---|-----------------|-----------|------------|
| Definition & Objective of Internal Auditing | 8493** | 1.43 | 2.039 |
| Scope of Audit Work | 5817*** | -6.71*** | 45.030*** |
| Common Concepts | 9009.5* | -2.48** | 5.189** |
| Planning the Audit (Selecting the Auditee) | 6186.5*** | -6.01*** | 36.162*** |
| Planning the Audit (Selecting the Auditor) | 7827.5*** | -6.49*** | 26.434*** |
| Planning the Audit (Setting the Time, Objective & Scope, Preliminary Survey, Audit Programme) | 9607 | -0.60 | 0.366 |
| Field Work | 7375*** | -4.48*** | 15.467*** |
| Reporting Findings & Recommendations | 6691*** | -4.26*** | 18.119*** |
| Follow-up | 9235.5 | -0.64 | 0.415 |
| Audit Measures | 8666** | -2.40** | 5.742** |
| Organisational Status | 2403*** | -15.18*** | 166.776*** |
| Membership of the IIA | <u>9</u> 234.5* | 1.99** | 3.970* |
| Staffing, Training & Development | 5412.5*** | -7.08*** | 50.061*** |
| Establishing Plans, Rules & Policies | 6932.5*** | 5.51*** | 37.496*** |
| Relationship with Auditees | 2728.5*** | -13.53*** | 139.598*** |
| Relationship with Auditees (and the audit report) | 2533*** | -14.61*** | 158.895*** |
| Audit Committee | 7783*** | -4.52*** | 14.571*** |
| Quality Assurance | 8855* | 2.45** | 6.015** |
| Relationship with External Auditors (General) | 2446.5*** | -14.14*** | 155.026*** |
| Relationship with External Auditors (Co-operation) | 3866.5*** | -12.34*** | 112.308*** |
| Environmental Responsibilities | 9730.5 | -0.55 | 0.110 |

¹ Key:

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- *** Significant @ 99%
- ** Significant @ 95%
- * Significant @ 90%

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7.2 Implications of the Univariate Analysis

Looking at all these results, it is apparent that on the different elements of the conceptual framework that generally, under both the parametric and non-parametric tests, there are in most cases significant differences between subjects within the three research groups in the public sector and their corresponding numbers in the private sector. This is clear since studying a look at the tables leaves us with the following results:

- (1) In the case of internal auditors and senior internal auditors, there are significant differences in the majority of the cases. As could be seen from tables 7.1 & 7.2, under both parametric and non-parametric tests there are 17 situations of significant difference. The F-ratio test also revealed a high number of significant differences between the two sectors. At both levels there were 15 factors showing significance differences between the two groups from the two sectors.
- (2) In the case of internal auditors three elements remained without significance under both parametric and non-parametric tests. These are the aspects dealing with: definition and objective of internal audit; follow-up; and quality assurance.

There were two other elements that showed insignificance (one under each test), with the factor regarding selecting the auditor showing significant difference under the Mann-Whitney and the factor on reporting findings & recommendations showing significant difference

under the T-test. However, in general in most cases there are significant differences in the way the conceptual framework for internal auditing is perceived by internal auditors in both sectors. This meant that despite the differences shown by respondents from the two sectors in the way they perceive the profession in general, the groups agree on the way they perceive the definition and objective of internal auditing, mainly because both have a positive but average perception when compared with what promoted by the conceptual model. This agreement was shown in the perception of following up audit recommendations and quality assurance. The agreement and average perception could relate to the fact that in both sectors internal auditors have similar views about the two aspects. Unfortunately, it seems that following up audit recommendations is not viewed as an essential part of the audit task.

(3) In the case of senior internal auditors, under both tests the number of cases with no significant differences was only four. These four cases were exactly the same under both tests. These are the elements testing the following: field work; audit measures; membership of the IIA; and environmental responsibilities. The remaining 17 elements all revealed significant difference in perception between senior internal auditors working in the public sector and their counterparts in the private sector.

- (4) The four factors that showed no significant differences between the two groups of senior internal auditors under both parametric and non parametric tests, also revealed no significance under the F-test in addition to the two factors regarding the common concepts and establishing plans, rules & policies.
- (5) The two groups of chief internal auditors recorded the lowest number of cases of significant differences; only 9 cases under the T-test revealed significant differences in the perception of the internal profession between chief internal auditors in the public sector and their counterparts in the private sector. The number of significant differences was slightly higher under the Mann-Whitney test where there were 11 significant differences. The following factors consistently revealed no significant differences under both tests: definition and objective of internal auditing; scope of audit work; common concepts; reporting findings and recommendations; follow-up, membership of the IIA; relationship with external auditors (co-operation); and environmental responsibilities.
- (6) When the response of all respondents in each sector is analysed, it is clear that there are significant differences between auditors in the public and private sectors in the way they perceive their profession. Significant perceptual differences are recorded in at least 15 out of the 21 elements of the conceptual framework, under the T-test the number

of significant differences went up to 16. The aspects showing no significance were: definition and objective of internal audit; common concepts; planning the audit; follow-up; membership of the IIA; quality assurance; and environmental responsibilities.

(7) Under the F-test the number of significant differences between all respondents from the two sectors went up to 17 factors. The four factors that revealed no significance under the F-test have also showed no significance under both parametric and non-parametric tests.

The above mentioned notes show that in the case of the first two research levels there are significant differences in 17 out of the 21 elements of the conceptual framework - a percentage of 81%. In the case of both levels there are only four elements which showed no significant differences. However, the four elements that showed no significant differences with the two groups of internal auditors are totally different from the four elements that showed no significant difference with the two groups of senior internal auditors. This might be the result of auditors from different levels having significantly different perceptions of the profession. This assumption will be examined in the next chapter.

On the other hand, the two groups of chief internal auditors show a lower number of significant differences between respondents from the

public and private sectors. The number of variables that revealed no significant differences was as low as nine under the T-test and was higher by two under Mann-Whitney test. This reveals that the difference of perception between the public and private sectors is lower at the highest level of auditors. Some of the elements showing no significant differences for the chief internal auditors also showed no significant differences for the internal auditors group. These included: definition and objective of internal auditing; selecting the auditor; follow-up; reporting findings and recommendations; and environmental responsibilities. Similarly, there was some conformity in the elements that did not show significant differences in the case of chief internal auditors and senior internal auditors. These elements were: membership of the IIA; environmental responsibilities; and field work.

Nevertheless, there are several elements of the conceptual framework that consistently showed significance at each of three levels of auditors. These aspects are: selecting the auditee; organisational status; relationship with auditees; relationship with auditees (and the audit report); audit committee; and relationship with external auditors (general). Note that these are not the only significant elements relating to each level of internal auditors, rather they are the elements that are shared between the three levels of internal auditors.

On the other hand, the results of the analysis for all the respondents put together reveal that there are significant differences in at least 15 out of the 21 factors. This means that the perception of the internal audit profession as held by auditors working in the public sector significantly differ in 71% of the elements of the conceptual framework from that perception held by auditors working in the private sector.

The conclusion that could be drawn from the results above is the existence of a relationship between the type of sector in which internal auditors are working and the way those auditors perceive the internal audit profession. This appears to result in internal auditors working in the public sector having a perception of internal auditing that is significantly different from the perception held by their counterparts in the private sector. This seems to be caused by differences in professional and organisational commitment between the two groups of internal auditors. That would explain the fewer number of differences found between the two groups representing the top level of internal auditors, as it is apparent that chief internal auditors in both sectors enjoy a higher degree of professional commitment. It is also obvious that work conditions in both sectors affect the manner in which internal auditors perceive internal auditing. As the factors that revealed consistent significant differences between all respondents are those that might be affected by organisational culture and structure and the interrelationship between different elements of the organisation.

Also it is important to note that there are a number of factors that showed consistent similarities. These are the ones dealing with the definition and objective of internal auditing, planning the audit, following up audit recommendations, and the environmental responsibilities of internal audit. The reason for these similarities could be that some of these aspects are new and ambiguous to all internal auditors in Egypt. Also, the lack of general professional guidelines for internal auditing has resulted in practitioners having similar views that mainly stem from the individual's experience.

Finally, it could be concluded that as a result of the statistical analysis shown above, the null hypothesis proposing no difference in perception between internal auditors from the public and private sectors could not be accepted.

7.3 Perceptual Differences on the Different Components of the Conceptual Framework

7.3.1 Significant MANOVA differences between the two groups of internal auditors in the public and private sectors In this section the response of the two groups representing the first level of internal auditors in the two sectors is analysed. The aim is to examine the differences between the two groups in the perception of the four main components and the overall perception of the conceptual

framework. In order to do so, the factors that form each of the components are grouped together and analysed using the multivariate

data analysis available within the Statistical Package for Social Scientists (SPSS/Win).

The results of the analysis are shown in table 7.5. As can be seen from the table, there are significant differences between the two groups on all four components as well as the overall perception of the conceptual framework under both the Hotellings and Wilks Lambda tests. It should also be noted that the significance revealed between auditors in the two sectors regarding the perception of the first component which deals with conceptual matters - as revealed by both tests - is mainly due to the significant differences in the second and the third factors. These factors are concerned with the scope of audit work and common concepts. It seems from looking at the mean scores of the two groups that the perception held by private sector respondents regarding these two factors is higher than the perception held by respondents working in the public sector. The reasons for this could be that internal auditors in the private sector, because of the size and nature of the private sector's organisations, are more involved and therefore get to have a wider scope of auditing as they feel more responsible. Also, their perception of the different concepts is better because they are usually recruited with a degree of experience unlike in the public sector, and also because they have wider scope of audit make them more aware of the different concepts of audit. Though the first factor that examines definition and objective of internal auditing showed no significant
difference between the two groups, it could be said that private sector internal auditors have a more positive perception of the first component than those working in the public sector. Still, in both sectors the perception of the first component of the conceptual framework was a positive one.

Similarly, the second component dealing with operational matters showed significant difference in perception between the two groups from the two sectors. The post hoc univariate F-ratio test reveals that the significant perceptual difference on the operational component has resulted from the significant differences in factors four, five, six, seven and ten. These were the factors relating to the elements of the conceptual framework examining selecting the auditee, selecting the auditor, planning the audit, field work, and audit measures. In the case of all of them internal auditors in the private sector had a perception that was more in agreement with the conceptual framework than that of internal auditors in the public sector. The operational factors regarding reporting findings and recommendations and follow-up were shown to have no significant differences. Hence, it could be said that at the first level internal auditors in the private sector have a more positive perception than that held by those working in the public sector.

A significant difference between respondents from the two sectors was also revealed in the perception of the third component of the

conceptual framework. This component deals with organisational matters both within the internal audit department and in terms of the location of the internal audit department in the organisational hierarchy. Again this was generated by significant differences in seven out of the eight factors that form the component. Five of these factors revealed that internal auditors in the private sector seem to have a perception that is significantly higher than that held by the group of internal auditors in the public sector. These factors were regarding: organisational status; staffing training and developments; relationship with auditees; relationship with auditees (and the audit report); and audit committee. Internal auditors in the public sector have a perception of the factors regarding membership of the IIA, and establishing plans, rules & policies that significantly agrees more with the conceptual framework than the perception held by internal auditors in the private sector. Only the element regarding quality assurance revealed no significant difference between the perception of the two groups.

The table also reveals a significant difference between the two groups in the perception of the fourth component of the conceptual framework. This component was made up of three different factors all examining external matters such as the relationship with external auditors and the environmental responsibility of internal auditing. The significant difference in the perception of the fourth external component

was due to the significant differences in factors 19 & 20 that examine the two facets of the relationship of external auditors. With both factors respondents from the private sector have a higher perception that is more in line with the conceptual framework than that of respondents in the private sector. Though the factor testing the environmental responsibilities showed no significance, it could be said that in general internal auditors working in the private sector have a more favourable perception of the external component than those working in the public sector.

Furthermore, the results of the multivariate analysis reveal that when analysing the response to all the factors put together there is a significant difference between the two groups of internal auditors in the pubic and private sectors in the overall perception of the conceptual framework. This was the result of significant differences on 16 factors out of the 21 that make up the conceptual framework, with only five factors showing no significant differences between the two groups. It could also be concluded that the group of internal auditors in the private sector perceive the framework in a more positive manner than the corresponding group in the public sector.

Thus, it could be concluded that there seems to be a significant difference in the way internal auditing is perceived by internal auditors in the public and private sectors. It was clear that the two groups of

internal auditors, representing the first level of auditors, showed a significant difference in the perception of all four components as well as the overall perception. The significant difference seems to be caused by internal auditors in the private sector showing a perception of internal auditing that complies more with what is promoted by the conceptual model than the perception held by auditors in the public sector. This was true in the case of all but two of the factors that revealed significance, the exceptions being in the case of factors under the organisational component and concerning membership of the IIA, and establishing plans, rules and policies. However, it should be emphasised that respondents from both sectors revealed a generally positive perception of internal auditing as presented by the conceptual model.

TABLE (7.5) PERCEPTION OF INTERNAL AUDIT PUBLIC SECTOR VS PRIVATE SECTOR **INTERNAL AUDITORS** INTERNAL AUDITORS MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA

<u>First Component</u> Multivariate tests of significance

| rust Compo | | | | | | |
|------------------|--------------|---------------|------------------|-------------|-------------|------------------|
| Multivariate | e tests of s | significant | e | Post | hoc Univa | riate F-test |
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | _ <u>F_</u> | <u>Sig. of F</u> |
| Hotellings | 0.440 | 19.661 | 0.000 | F1 | 0.132 | 0.717 |
| Wilks | 0.694 | 19.661 | 0.000 | F2 | 34.782 | 0.000 |
| | | | | F3 | 10.960 | 0.000 |
| Second Com | ponent | | | | | |
| Multivariate | e tests of s | ignificanc | e | | | |
| Test Name | <u>Value</u> | _ <u>_</u> F_ | <u>Sig. of F</u> | | | |
| Hotellings | 0.810 | 15.048 | 0.000 | | | |
| Wilks | 0.552 | 15.048 | 0.000 | | | |
| Post hoc Uni | ivariate F | -test | | | | |
| Var. F | Sig. | | | | - | 0. 65 |
| F4 35.1 | | | | <u>Var.</u> | F_{-} | Sig. of F |
| F5 5.4 | | | | F8 | 3.063 | 0.082 |
| F6 4.3 | | | | F9 | 3.612 | 0.059 |
| F7 52.0 | | | | F10 | 25.680 | 0.000 |
| Third Comp | <u>onent</u> | | | | | |
| Multivariate | tests of s | ignificanc | e | | | |
| <u>Test Name</u> | <u>Value</u> | <u> </u> | Sig. of F | | | |
| Hotellings | 8.636 | 58.637 | 0.000 | | | |
| Wilks | 0.216 | 58.637 | 0.000 | | | |
| Post hoc Uni | variate F. | -test | | | | |
| Var. F | Sig. | | | | | |
| F11 149.08 | | | | <u>Var.</u> | <u>F</u> | <u>Sig. of F</u> |
| F12 13.65 | | | | F15 | 46.927 | 0.000 |
| F13 28.76 | | | | F16 | 151.291 | 0.000 |
| | | | | E17 | 11 250 | 0 000 |

F17

F18

11.359

1.475

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0.000

0.227

.

.

Fourth Component

92.365

F14

Multivariate tests of significance

| <u>Test Name</u> | <u>Value</u> | <u> </u> | Sig. of F |
|------------------|--------------|----------|-----------|
| Hotellings | 1.575 | 70.348 | 0.000 |
| Wilks | 0.388 | 70.348 | 0.000 |

0.000

Post hoc Univariate F-test

| <u>Var.</u> | F | Sig. of F |
|-------------|---------|---------------|
| F19 | 66.007 | 0.000 |
| F20 | 154.887 | 0.000 |
| F21 | 3.165 | 0.07 7 |

<u>Overall</u>

| Overall | | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|--|
| Multivariate tests of significance | | | | | | |
| Test Name | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 10.869 | 60.039 | 0.000 | | | |
| Wilks | 6.502 | 60.039 | 0.000 | | | |

7.3.2 Significant MANOVA differences between the two groups of senior internal auditors / internal audit managers in the public and private sectors

Here the response of the middle level of internal auditors is put under examination. Again, the response from the groups in both sectors is being analysed to test the difference in the perception of the four components of the conceptual framework as well as the general perception of the framework. Table 7.6 reveals that on the first component dealing with the conceptual matters there is a significant difference between the two groups. The difference resulted from significant differences on two out of the three factors that form the component. There were significant perceptual differences on the factors examining the definition and objective of internal auditing with senior internal auditors in the public sector having a higher perception than senior internal auditors in the private sector. And the scope of audit work which revealed higher perception in the private sector than in the public sector; the factor examining the common concepts showed no significant difference.

The operational component also revealed a significant perceptual difference between the two groups of auditors. The difference was a direct result of significant differences on five out of seven factors making up the second components. The factors concerned with: selecting the auditee; selecting the auditor; reporting findings and

recommendations; and follow-up. With these there was a higher degree of compatibility between the perception of senior internal auditors in the private sector and the conceptual framework than the perception of the corresponding group in the public sector. While the perception held by senior internal auditors in the public sector of the factor concerned with planning the audit is significantly higher than that held by the private sector. The only two factors showing insignificance were those examining the process of field work and audit measures.

Similarly, the perception of the third component that deals with organisational matters varies significantly between the public and private sectors. Under this component there were eight different factors all testing different aspect of the organisational facet of the framework. Six out of these eight factors showed significant differences in perception between respondents from the two sectors. The factors showing significance were those examining organisational status, staffing training and development, relationship with auditees, relationship with auditees (regarding the audit report), audit committee, and quality assurance. The first five factors of the six revealed higher perception among respondents in the private sector than in the public sector, while the factor on quality assurance reveals exactly the opposite. Only the factors concerning membership of the IIA and establishing plans, rules and policies revealed no significant perceptual

difference between the two groups. Therefore, the organisational component seems to have been perceived more favourably among senior internal auditors in the private sector than their counterparts in the public sector.

Also, there was a significant perceptual difference between the two groups of auditors on the component dealing with external matters. This was created by significant differences on two of the three factors forming the fourth component. The two factors with significant differences were both dealing with the relationship with external auditors, and the factor revealing no significance was that regarding the environmental responsibilities of internal auditing. It is to be noted that senior internal auditors in the private sector perceive both the factors concerning relationship with external auditors in a more positive way than senior internal auditors in the public sector.

Moreover, the general perception of the conceptual framework differs significantly between senior internal auditors in the public sector and their counterparts in the private sector. This difference is justified by the significant differences that exist between the two groups in 15 out of the 21 factors forming the conceptual framework.

The results discussed above lead to the conclusion that at the second level of internal auditors, auditors from the public and private sectors

differ significantly in their perception of the internal audit profession. This difference was proved on all four components as well as the overall perception of what is proposed by the conceptual model. The significant perceptual differences were mainly caused by senior internal auditors in the private sector perceiving most aspects of internal auditing in a manner that is more compatible with the model than that of auditors in the public sector. Respondents from the public sector showed more positive perception of only four of the factors examining the different aspects of internal auditing.

Nevertheless, it is important to note that auditors from both sectors seem to have a generally favourable perception of internal auditing. This perception seem to vary from one aspect to another with very positive perception on some aspects and moderate response to others. The cause of the differences between the two sectors will be examined in detail later in this chapter when the results of all tests are studied.

TABLE (7.6) PERCEPTION OF INTERNAL AUDIT PUBLIC SECTOR SENIOR INTERNAL AUDITORS SENIOR INTERNAL AUDITORS SENIOR INTERNAL AUDITORS MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA

First Component

| First Compo | nent | | | | | | | |
|----------------------|------------------------------------|-------------|------------------|---|----------------------------|----------|------------------|--|
| Multivariate | Multivariate tests of significance | | | | Post hoc Univariate F-test | | | |
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> | |
| Hotellings | 0.522 | 16.719 | 0.000 | | F1 | 30.440 | 0.717 | |
| Wilks | 0.657 | 16.719 | 0.000 | | F2 | 28.139 | 0.000 | |
| | | | | | F3 | 3.885 | 0.052 | |
| Second Com | ponent | | | | | | | |
| - | Multivariate tests of significance | | | | | | | |
| Test Name | Value | F | <u>Sig. of F</u> | | | | | |
| Hotellings | 1.268 | 16.670 | 0.000 | | | | | |
| Wilks | 0.441 | 16.670 | 0.000 | | | | | |
| | | | | | | | | |
| Post hoc Uni | variate F | -test | | | | | | |
| <u>Var.</u> <u>F</u> | Sig. | <u>of F</u> | | 7 | /ar. | <u> </u> | <u>Sig. of F</u> | |
| F4 6.8 | 05 0.0 | 11 | | F | 78 | 55.077 | 0.000 | |
| F5 13.3 | 22 0.0 | 00 | | F | 19 | 15.425 | 0.000 | |
| F6 9.5 | 37 0.0 | 03 | | F | F10 | 0.989 | 0.322 | |
| F7 0.0 | 02 0.9 | 64 | | | | | | |
| | | | | | | | | |
| Third Comp | onent | | | | | | | |
| Multivariate | tests of s | ignificanc | e | | | | | |
| Test Name | Value | F | <u>Sig. of F</u> | | | | | |
| Hotellings | 1.764 | 20.064 | 0.000 | | | | | |
| Wilks | 0.362 | 20.064 | 0.000 | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|-------------|----------|------------------|-------------|----------|------------------|
| F11 2 | 29.162 | 0.000 | F15 | 62.152 | 0.000 |
| F12 | 0.611 | 0.436 | F16 | 39.555 | 0.000 |
| F13 I | 18.396 | 0.000 | F17 | 18.461 | 0.000 |
| F14 | 3.548 | 0.063 | F18 | 6.375 | 0.013 |

| Fourth | Component |
|--------|-----------|
| | |

 Multivariate tests of significance

 Test Name
 Value
 F
 Sig. of F

 Very Wither
 0.010
 20.000
 0.000

| Hotellings | 0.919 | 29.403 | 0.000 | |
|------------|-------|--------|-------|--|
| Wilks | 0.521 | 29.403 | 0.000 | |

Post hoc Univariate F-test

| <u>Var.</u> | _ <u>F</u> | <u>Sig. of F</u> |
|-------------|------------|------------------|
| F19 | 64.786 | 0.000 |
| F20 | 39.440 | 0.000 |
| F21 | 0.319 | 0.574 |

<u>Overall</u>

| Multivariate tests of significance | | | | | |
|------------------------------------|-------|----------|------------------|--|--|
| <u>Test Name</u> | Value | <u> </u> | <u>Sig. of F</u> | | |
| Hotellings | 8.157 | 30.296 | 0.000 | | |
| Wilks | 0.109 | 30.296 | 0.000 | | |

7.3.3 Significant MANOVA differences between the two groups of chief internal auditors in the public and private sectors

Table 7.7 shows the results of the analysis of the response of the two groups representing the top level of internal auditors in the two sectors. It is apparent from the table that there was no significant difference between the two groups of auditors. The lack of significance is a natural result as the post hoc univariate analysis reveals insignificant differences in all of the three factors examining conceptual matters that form the first component.

On the other hand, the perception of the second component that deals with the operational aspect of the conceptual framework differs significantly between the two groups. This was generated by significant differences on the three factors examining selecting the auditee, selecting auditor, and audit measures. In the first two cases chief internal auditors in the private sector have a perception that is more compatible with the conceptual framework than that of the public sector's chief internal auditors. The third factor revealed exactly the opposite. The other factors under the second components showed no significant differences. These were the factors examining planning the audit work, field work, reporting findings and recommendations, and follow-up. But it could be deducted that, in general, chief internal auditors in the private sector perceive the operational component in a more positive manner than their counterparts in the public sector.

Meanwhile, the analysis of the response of the chief internal auditors in both sectors to the factors examining the organisational aspects of the conceptual framework reveals a significantly difference perception. The reason for the significantly different perception of the organisational component is the existence of significant differences in the majority of the factors that make up the third component. There were perceptual significant differences in six out of the eight factors within the component. The chief internal auditors in the two sectors seemed to have different perceptions of: organisational status; establishing plans, rules and policies; relationship with auditees; relationship with auditees (and the audit report); audit committee; and quality assurance. With the factors on organisational status and relationship with auditees showing a more positive perception in the private sector than in the public sector, the remaining three factors reveal a more positive perception held by chief internal auditors in the public sector. However, the two groups have shown no significant difference in the way they perceive membership of the IIA and the process of staffing, training and development within the internal audit department. z

The two groups of chief internal auditors also perceive the component relating to the external aspects of the internal audit profession in a significantly different way. Table 7.7 reveals a significant difference between the two groups of chief internal auditors in the perception of

the fourth component under both the Hotellings and Wilks Lambda tests. The post hoc univariate F-test reveals that there was significant difference between the two groups in only one of the three factors that make up the component; this factor was the one examining the relationship with external auditors (general). Looking at the mean scores for the two groups it seems that the private sector's chief internal auditors perceive the relationship with external auditors (general) in a more positive way than chief internal auditors in the public sector. Meanwhile the factors on the relationship with external auditors and the environmental responsibilities showed no major perceptual differences between respondents from the two sectors.

Furthermore when the overall perception of the conceptual framework was examined it was apparent that there was a significant perceptual difference between chief internal auditors from the two sectors. This significant difference is explained by looking at the results of the ANOVA F-test which reveals significant perceptual differences between the two groups on 10 factors.

Therefore, it could be concluded that the difference between the sectors seems to affect the way in which chief internal auditors perceive their profession, as it could be seen from the results of both univariate and multivariate analysis. However, it is also apparent that chief internal auditors show fewer numbers of differences than groups representing

the other two levels of internal auditors. It is also very important to note that chief internal auditors in the two sectors seem to have similar perception of the of the factors examining conceptual matters. As expected this result shows that the top level of internal auditors would have highly favourable perception of these matters. The similarity in perception between auditors from the two sectors is mainly because these two groups have more experience and professional commitment which make them agree on many factors, particularly those dealing with conceptual matters. Also important is the finding that all the factors that were perceived more favourably by chief internal auditors in the public sector fall under the organisational component. This could be due to the fact that in the public sector rules and regulations are more clearly stated, as in the public sector great attention is paid to setting organisational rules and policies. Whether these rules are adhered with or not is another matter. Meanwhile, the remaining components dealing with operational and external matters seem to be perceived better by chief internal auditors in the private sector. The reasons behind this are perhaps because chief internal auditors in the public sector seem to have some reservations on the relationship with external auditors, viewing them as a form of policeman who are only looking for irregularities. A more detailed explanation of the reasons behind all the differences are going to be examined closely later in the chapter.

Thus, since the results of the analysis reveal significant differences between chief internal auditors from the two sectors, it could be concluded that the difference in sector results in significant difference in the way internal auditors perceive their profession. However, the differences are fewer the higher the level of auditor. Therefore based on this finding the null hypothesis must be rejected.

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TABLE (7.7)

PERCEPTION OF INTERNAL AUDIT PUBLIC SECTOR VS PRIVATE SECTOR CHIEF INTERNAL AUDITORS CHIEF INTERNAL AUDITORS MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA

First Component

| Multivariate tests of significance | | | Post l | oc Univa | riate F-test | |
|------------------------------------|------------------|------------|------------------|-------------|--------------|------------------|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
| Hotellings | 0.041 | 0.758 | 0.000 | F1 | 2.050 | 0.158 |
| Wilks | 0.960 | 0.758 | 0.000 | F2 | 0.042 | 0.838 |
| | | | | F3 | 0.002 | 0.464 |
| Second Com | Second Component | | | | | |
| Multivariate | e tests of si | ignificanc | e | | | |
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 0.599 | 4.362 | 0.001 | | | |
| Wilks | 0.625 | 4.362 | 0.001 | | | |
| Post hoc Univariate F-test | | | | | | |

| <u>Vаг.</u> | <u>_F_</u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|-------------|------------|------------------|-------------|----------|------------------|
| F4 | 6.285 | 0.015 | F8 | 0.000 | 0.993 |
| F5 | 7.200 | 0.010 | F9 | 1.590 | 0.212 |
| F6 | 1.220 | 0.274 | F10 | 4.770 | 0.033 |
| F7 | 1.842 | 0.180 | | | |

Third Component

Wilks

| Third Component | | | | |
|------------------------------------|--------------|----------|------------------|--|
| Multivariate tests of significance | | | | |
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | |
| Hotellings | 1.446 | 9.038 | 0.000 | |

0.409

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | Sig. of F | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|-------------|----------|-----------|-------------|----------|------------------|
| F11 | 38.738 | 0.000 | F15 | 28.268 | 0.000 |
| F12 | 1.375 | 0.246 | F16 | 12.618 | 0.001 |
| F13 | 3.351 | 0.072 | F17 | 7.262 | 0.009 |
| F14 | 20.910 | 0.000 | F18 | 9.407 | 0.003 |

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9.038 0.000

| Fourth | ı Com | ponent |
|--------|-------|--------|
| | | |

| Multivariate tests of significance | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | |
| Hotellings | 0.663 | 12.162 | 0.000 | | |
| Wilks 0.601 12.162 0.000 | | | | | |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | Sig. of F |
|-------------|----------|-----------|
| F19 | 34.744 | 0.000 |
| F20 | 0.393 | 0.553 |
| F21 | 0.884 | 0.351 |

<u>Overall</u>

| Multivariate tests of significance | | | |
|------------------------------------|--------------|----------|------------------|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> |
| Hotellings | 15.620 | 27.522 | 0.000 |
| Wilks | 0.060 | 27.522 | 0.000 |

7.3.4 Significant MANOVA differences between All Respondents in the Public Sector VS All Respondents in the Private Sector

Having studied the response of each of the three levels separately it was crucial to analyse the response of all respondents in the public sector put together, against the response of all respondents in the private sector. The results of such analysis are shown in table 7.8. The first thing to be noted is that there were significant differences between internal auditors from the two sectors on all four components as well as the overall perception of the conceptual framework. The first component that examines the conceptual aspects of the framework shows significant difference in perception between internal auditors from the two sectors. The component was made up of three different factors, two of which revealed significant perceptual differences between the two groups. These factors were the ones examining the scope of audit work and common concepts. On both factors the perception of internal auditors in the private sector was more compatible with the conceptual framework than the perception of internal auditors in the public sector. The only conceptual factor showing no significance was the one dealing with definition and objective of internal auditing. Hence, it could be said that respondents from the private sector have a more positive perception of the first component than respondents from the public sector.

Similarly internal auditors in the public sector perceive the operational component in a significantly different way from internal auditors in the private sector. The significant difference on the second component was due to significant differences between internal auditors from the two sectors in the perception of five of the seven factors that make up the component. The post hoc univariate test reveals significant perceptual differences on the operational factors examining the aspects of: selecting the auditee; selecting the auditor; field work; reporting findings and recommendation; and audit measures. Again, on all of these five factors the mean scores of respondents in the private sector are significantly higher than those of their counterparts in the public sector, which indicates a higher perception of these operational aspects among internal auditors in the private sector as compared with those working in the public sector. However, the factors relating to planning the audit and following up the audit report did not seem to reveal any significance in perception between the two groups of auditors. Again, it seems that in general respondents from the private sector have a higher perception of the operational component than those from the public sector.

The results of the multivariate test also reveal that internal auditors in the two sectors have a significantly different perception of the third component of the conceptual framework. This component is concerned with organisational matters. This could be justified by

significant differences in 100% of the factors within the component, as it could be seen from the results of the F-test which show that all of the factors under the organisational component revealing significance. Looking at the mean scores it is apparent that internal auditors in the public sector perceive the factors regarding membership of the IIA, establishing plans rules and policies, and quality assurance in a more positive way than internal auditors in the private sector. On the other hand, internal auditors in the private sector have a higher perception than respondents from the public sector when it comes to the factors examining organisational sectors, staffing training and development, relationship with auditees, relationship with auditees (and the audit report), and the audit committee.

A similar result was obtained regarding the component dealing with the external matters. The table reveals a significant difference in the perception of the fourth component between auditors from the public sector and their counterparts in the private sector. Two of the three factors making up the component showed significance, with both of them dealing with different aspects of the relationship with external auditors. It should be noted that on both factors internal auditors in the private sector have a more positive perception than internal auditors working in the public sector. However, the factor on the environmental responsibilities of internal auditors in the two sectors.

Still, it could be concluded that the external component is perceived more favourably by respondents in the private sector than by respondents in the public sector.

Overall, the perception of the conceptual framework in general varies significantly between all internal auditors in the public sector and all internal auditors in the private sector, as can be seen from the results of the multivariate Hotellings and Wilks Lambda tests shown in table 7.8.

<u>TABLE (7.8)</u> PERCEPTION OF INTERNAL AUDIT PUBLIC SECTOR VS PRIVATE SECTOR ALL RESPONDENTS ALL RESPONDENTS MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA

| Multivariat | onent e tests of a | significanc | • | Post | hoc Univa | rioto F to |
|--------------------------|-----------------------|-------------|-----------------------|-------------------|-----------------|----------------|
| <u>Test Name</u> | <u>Value</u> | F | Sig. of F | <u>Var.</u> | <u> </u> | Sig. of I |
| Hotellings | 0.225 | 21.988 | 0.000 | <u>var.</u> F1 | 2.037 | 0.155 |
| Wilks | 0.225 | 21.988 | 0.000 | F2 | 45.030 | 0.000 |
| W IIKS | 0.810 | 21.900 | 0.000 | F3 | 43.030 5.188 | 0.000 |
| Second Con | nonent | | | 1.2 | 5.100 | 0.025 |
| Multivariat | | ignificanc | A | | | |
| Test Name | <u>Value</u> | | Sig. of F | | | |
| Hotellings | 0.354 | 14.604 | 0.000 | | | |
| Wilks | 0.739 | 14.604 | 0.000 | | | |
| W IIKS | 0.759 | 14.004 | 0.000 | | | |
| Post hoc Un | ivariata F | toct | | | | |
| Var. <u> </u> | | of F | | <u>Var.</u> | F | <u>Sig. of</u> |
| F4 36.1 | | 000 | | <u>var.</u> F8 | 18.119 | 0.000 |
| F5 26.4 | | 000 | | F9 | 0.415 | 0.520 |
| F6 0.3 | | 600 646 | | F10 | 5.742 | 0.017 |
| F7 15.5 | | | | 110 | J.142 | 0.017 |
| | | | | | | |
| <u>Third Comp</u> | | · | _ | | | |
| Multivariat Test Name | Value | F | e <u>Sig. of F</u> | | | |
| Hotellings | 1.859 | 66.938 | 0.000 | | | |
| Wilks | 0.350 | 66.938 | 0.000 | | | |
| ** IIK5 | 0.550 | 00.958 | 0.000 | | | |
| Post hoc Un | ivariate F | -test | | | | |
| <u>VarF</u> | <u>Sig.</u> | <u>of F</u> | | <u>Var.</u> | <u> </u> | <u>Sig. of</u> |
| FII 166.7 | 76 0.0 | 000 | | F15 | 139.598 | 0.000 |
| F12 3.9 | 70 0.0 | 047 | | F16 | 158.895 | 0.000 |
| F13 50.0 | 61 0. | 000 | | F17 | 14.571 | 0.000 |
| F14 37.4 | .95 0.0 | 000 | | F18 | 6.015 | 0.015 |
| | | | | | | |
| Fourth Com | ponent | | | | | |
| Multivariat | | ignificance | e | | | |
| Test Name | Value | F | Sig. of F | | | |
| Hotellings | 0.739 | 72.158 | 0.000 | | | |
| Wilks | 0.575 | 72.158 | 0.000 | | | |
| | | | | | | |
| Post hoc Un | ivariate F | -test | | | | |
| | | | | | | |
| F19 155.0 | | 000 | | | | |
| | <u>Sig.</u> | | | | | |

•

| <u>var.</u> | <u> </u> | <u> 31g. 01 I</u> |
|-------------|----------|-------------------|
| F19 | 155.026 | 0.000 |
| F20 | 112.308 | 0.000 |
| F21 | 0.110 | 0.741 |

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<u>Overall</u>

| Multivariate tests of significance | | | |
|------------------------------------|--------------|----------|------------------|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> |
| Hotellings | 3.808 | 49.873 | 0.000 |
| Wilks | 0.208 | 49.873 | 0.000 |

7.4 Implications of the Multivariate Analysis

7.4.1 The Conceptual Component

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Looking at the results mentioned above it is apparent that in three out of the four cases the first component has shown significant perceptual differences between internal auditors working in the public sector and those working in the private sector. The only case where there was no difference in perception between auditors in the two sectors was in the case of the two groups of chief internal auditors. As shown in table 7.11, the two groups of chief internal auditors do not differ in the way they perceive any of the three factors that examine the different aspects of the conceptual component. Thus, it could be said that in general the chief internal auditors in both sectors have a similar perception of the definition and objective of internal audit work, scope of audit work, and the common concepts of internal auditing. The perception held by the chief internal auditors of these conceptual factors is a positive one as the mean scores shows a high degree of agreement with the conceptual framework.

On the other hand, the groups of internal auditors and senior internal auditors showed significant differences on the first component as there seemed to be significant differences on two of the three factors under the component in the case of each of the two levels. In the case of the two groups of internal auditors the significant difference was generated by significant differences on the scope of audit work and the common

concepts, where the mean scores in the private sectors seems to be higher than that in the public sector. This means that internal auditors in the private sector show a higher degree of agreement with the conceptual framework when it comes to the conceptual factors than that shown by internal auditors in the public sector. Meanwhile, in the case of senior internal auditors the significant difference lies in the perception of the definition and objective of internal auditing and the scope of internal auditing. Senior internal auditors in the public sector have a perception of the definition and objective of internal auditing that is significantly higher than that held by senior internal auditors in the private sector. However, the perception of the scope of internal auditors in the private sector is significantly higher than in the public sector. Still, in general senior internal auditors in both sectors have perception of the three factors that highly agree with the conceptual framework.

The next few paragraphs give the reasons behind the significant differences experienced by the different groups on factors under the first component. First, the factor examining the definition and objectives of internal audit showed significance in the case of senior internal auditors; the difference was caused by respondents in the public sector having a higher perception than those in the private sector. This might be due to the fact that in the public sector there are rules and regulations that state the task of each department regardless of what

exists in practice, while the private sector has not got a clearly set definition so the practitioner definition is more closely connected with what exists in practice.

The factor dealing with the scope of audit work seems to be perceived better by internal auditors and senior internal auditors in the private sector than those in the public sector. This seems to be a result of those in the private sector being more involved because of the size of organisations in the private sector, thus they feel more responsible. Also, auditors in the private sector seem to be recruited with a degree of experience unlike in the public sector, and auditors in the private sector usually have a better and more varied educational background. This has the dual effect of making respondents in the private sector more aware of the wider scope of internal auditing, and also justifies the internal auditors in the private sector having a higher perception than those in the public sector of the factor concerning the common concepts of internal auditing. This could be confirmed by chief internal auditors in both sectors having a similar perception of all factors under the first component, as it is obvious that at this level auditors in both sectors have relatively similar experience and professional commitment.

Nonetheless, the analysis of all the respondents reveals a significant difference in the perception of the first component between subjects in the two sectors. The difference was generated by significant

difference in the scope of internal auditing and the common concepts of internal auditors. Respondents in the private sector showed higher perception of both factors than that held by respondents working in the public sector. In the case of the scope of auditing this could be due to the fact that internal auditors in the private sector feel more responsible as they are usually more involved because of the relatively smaller size of private sector's organisation. In the case of common concepts, respondents from the private sector have a better perception because usually they have a better educational background and experience. Hence, it seems that internal auditors working in the private sector have a higher perception of the first component than those in the public sector.

7.4.2 The Operational Component

On the other hand, in all four cases there was a significant difference between respondents from the two sectors on the perception of the second component that deals with operational matters. This significant difference occurred in the case of each level of three levels and in the case of all respondents. In the case of the first level of internal auditors, the significant difference in the perception of the second component was due to internal auditors in the private sector having significantly higher mean scores than those scored by internal auditors working in the public sector in the five factors that showed significance. This meant that internal auditors in the private sector have a more

favourable perception of the operational component than the perception held by their counterparts in the public sector.

Meanwhile, the significant difference between the two groups of senior internal auditors was caused by internal auditors in the private sector showing more positive perception than those in the public sector in four out of five factors that revealed significant differences between the two groups. Internal auditors in the public sector have a more positive perception of the factor regarding the process of planning the audit than their counterparts in the private sector. But it could be said that, in general, senior internal auditors in the private sector have a more favourable perception of the second component than that held by senior internal auditors in the public sector.

The significant difference between the two groups of chief internal auditors in the perception of the operational component was caused by significant differences in three factors within the component. All of these factors revealed more positive perception among chief internal auditors in the private sector than their corresponding numbers in the public sector. These were the factors regarding the processes of selecting the auditee, selecting the auditor to carry out the audit task, and audit measures.

Studying those results, the significantly different perception of the operational factors could be explained as follows: the reason for auditors at all three levels in the private sector having more positive perception of the process of selecting the auditee might be that in the public sector the process is perceived as repetitive routine. In view of this the analysis of the risk involved with different operations is not seen as the task of auditors but of top management. Meanwhile, the similar difference shown on the process of selecting the auditor could be due to the existence of auditors with different educational backgrounds in the private sector and this could be also related to how auditors in the private sector were more receptive to scope of internal auditing in its wider context. The reasons behind the differences in those two factors also result in auditors from the first level in the private sector having a more positive perception of the process of planning the audit. This could be further explained by the fact that the same factor was perceived more positively in the public sector by respondent at the middle level. This is because at this level auditors in the public sector would have gained more experience due to the slow promotion system. Again, the difference of experience and educational background was evident as respondents at the first level in the private sector appear to have a more positive perception of the factor regarding field work than their counterparts in the public sector. As mentioned before, at the entry level auditors in the private sector are recruited with some degree of experience and some are even recruited

after having worked in the public sector. The better salaries and work conditions in the private sector usually attract people who are better qualified and experienced.

Moreover, the difference invoked by the private sector's senior internal auditors revealing more positive perception on reporting findings and recommendations, and following up these recommendations, was caused mainly by auditors in the private sector being more involved and to the size and nature of their organisation. Also, it is due to the way senior internal auditors in both sectors view their role. In the private sector auditors see their role as a counsel to other member of the organisation, while in the public sector some auditors view their role more like a policeman reporting only negative findings. Likewise, the difference on the last factor under this component that deals with audit measures was a result of a more positive perception sector at the first level in the private, and a more positive perception at the top level in the public sector. The justification for this could be that in the private sector auditors at the first level are more closely involved with all aspects of the audit task while in the public sector auditors see comparing the results as the job of top level management. The fact that the top level of auditors in the public sector have a more positive perception confirms this justification. Also, the difference on this operational factor could be connected with the conceptual factor regarding common concepts, as it could be deducted that where

auditors are more aware of the different audit concepts they would be more aware of audit measures.

Furthermore, the significant difference between all respondents in the public and private sectors in the way they perceive the operational component was due to significant differences in five out of seven factors under the component. On all five factors respondents from the private sector scored significantly higher mean scores than respondents in the private sector. Thus, it could be said that, in general, internal auditors working in the private sector have a perception of the operational component that is more compatible with the conceptual framework than the perception held by auditors in the public sector.

7.4.3 The Organisational Component

The multivariate analysis also reveals that there were significant differences between the two sectors in the perception of the third component in all four cases. That means there were significant differences at all three individual levels as well as for all respondents. In the case of the first level of internal auditors, the significant difference between the two groups was caused by differences in seven out of the eight factors making up the component. Looking at the mean scores of the two groups for these seven factors reveals that five are perceived more positively by internal auditors in the private sectors than those in the public sectors. The other two factors revealed a more

favourable perception among respondents in the public sector than those in the private sector; these two factors were concerned with membership of the IIA, and establishing plans, rules and policies.

On the other hand, five of the six factors that caused the significant difference between the two groups of senior internal auditors all reveal higher perception among respondents in the private sector than among their counterparts in the public sector. The factor concerning quality assurance seems to be perceived higher among respondents from the public sector. Meanwhile, in the case of the two groups of chief internal auditors the multivariate significant difference was due to univariate significant differences in six out of the eight factors forming the component. The factors regarding organisational status and relationship with the auditees seem to be perceived more favourably among chief internal auditors in the private sector than among those working in the public sector; the other three factors showed exactly the opposite. However, it should be noted from the mean scores that chief internal auditors in both sectors perceive the organisational matters in a way that is highly compatible with the conceptual framework.

Respondents from all three groups in the private sector showed a more positive perception on the aspect of the organisational status of the internal audit department than auditors in the public sector. The reasons for this might be that in the public sector organisational structure is a

uniform state system which make any changes more difficult than in the case of the private sector where there is more control over structure. It should be noted here that, generally, in the public sector internal audit function enjoys the status of being a separate department unlike in the private sector. However, due to the bureaucratic nature of public sector organisations, auditors are bound to view changes and improvement to aspects concerning organisational status as unattainable.

However, the difference shown only at the first level of auditors between the two sectors in the perception of factor dealing with membership of the IIA could be caused by auditors in the public sector looking for an opportunity to enhance their qualification in order to improve their career advancement. That would explain why respondents from the public sector show more positive perception than those in the private sector. However, it should be stated that despite the non-existence of a chapter of the IIA in Egypt, respondents at all levels show a reasonably positive perception so the difference revealed at the first level could influenced by some random effect.

Nonetheless, the private sector's internal auditors and senior internal auditors seem to perceive the aspect dealing with staffing, training and development in a manner that is more compatible than that of their counterparts in the public sector. This might be due to the recruitment procedures in both sectors as the public sector's organisations are

usually allocated new members of staff in all departments according to a centralised national plan to employ new graduates as part of the government social responsibility. Meanwhile, in the private sector, organisations are free to recruit auditors with the educational background and experience to meet the organisation's needs. Respondents in both sector have a positive perception but those in the public sector - due to their educational background as they are more financially oriented - view the idea of recruiting auditing from different backgrounds in a less favourable manner. That would explain why chief internal auditors did not differ in their perception. Also, the perception could be influenced by respondents in the private sector feeling the need to make themselves marketable since there is no assurance of staying in the job for life like in the public sector. Likewise, promotion and career advancement in the public sector is more of a routine task and it is only a matter of time before people are promoted, but in the private sector it is more competitive.

On the other hand, the fact that public sector auditors are more oriented towards rules and regulations has resulted in them showing more favourable perception of the factor examining establishing plans, rules and policies. Meanwhile, in the case of the two factors dealing with relationship with auditees, private sector's auditors at all three levels have a perception that is more compatible with what is promoted by the conceptual framework than those in the public sector. This

could be simply explained by the attitude of auditors in both sectors and the way they view their role as mentioned before with public sector's auditors viewing their role more like a policeman rather than a counsel.

Similarly, private sector respondents at the first two levels showed more a positive perception of the factor regarding audit committee, while at the top level of auditors respondents in the public sector have a more favourable perception than that held by chief internal auditors in the private sector. Since the idea of an audit committee is a virtually new concept especially in a developing country, the difference at the first two levels could be due to the individual's own experience and background. However, the difference at the top is perhaps because in the public sector the audit committee is expected to help reduce the responsibility of chief internal auditors as well as enhancing independence and organisational status. Furthermore, the reason for senior internal auditors and chief internal auditors in the public sector having more favourable perception of quality assurance could be that again in the public sector it is forced by formal rule and regulation, so what is perceived as a necessity does not necessarily have to exist in practice. The practice of internal auditing in both sectors will be examined in chapter nine.

Moreover, the multivariate analysis reveals a significant difference between all internal auditors working in the public sector and all

internal auditors working in the private sector in the way they perceive the third component of the framework. Looking at the mean scores for the factors that caused this difference it is apparent that respondents in the public sector have a higher perception of the factors examining membership of the IIA, establishing plans rules and policies , and quality assurance than the perception held by respondents in the private sector. However, respondents in the private sector have a more positive perception of the remaining six factors under the component.

7.4.4 The External Component

Again, the analysis revealed significant differences in the perception of the fourth component at all four levels and between the two sectors in general. The significant difference revealed at the first level between the two groups of internal auditors was due to internal auditors in the private sector showing significantly higher perception of the two factors on the relationship with external auditors than their corresponding numbers in the public sector. A similar pattern of results was obtained in the case of the two groups of senior internal auditors.

On the other hand, the significant perceptual difference between the two groups of chief internal auditors in the way they perceive the third component was a result of chief internal auditors in the private sector having a significantly higher perception of the factors concerning relationship with external auditors (general) than the perception held by

those working in the public sector. However, in the case of all respondents the significant difference seems to be caused by respondents in the private sector having a more positive perception of the two factors on relationship with the external auditors than respondents from the public sector.

The differences could be due to the way internal auditors in the public sector view the role of external auditors. Most of the public sector's internal auditors feel that external auditors are only there to report negative findings. Again, this is influenced by the way internal auditors view the auditor's role. Thus, if they think it is of a policeman they are bound to view external auditors in a certain manner. Also it is important to note that those external auditors who audit the public sector are public employees working for CAO, so they are bound to have the same attitude unlike well qualified and trained private external auditors who audit the private sector.

7.4.5 The Overall Perception

It is apparent from studying the results of the multivariate analysis that there are significant differences between respondents from the public and private sectors at all three levels, as well as for all respondents in the way they perceive the framework in general. These differences resulted from respondents in the two sectors showing significant

perceptual differences in most of the factors that make up the framework.

Also, in almost all of the cases there were significant differences in the way the four components were perceived by respondents from the two sectors. The only exception was in the case of the two groups of chief internal auditors in the way they perceive the first component. It could be said that internal auditors working in the private sector have a perception that is more compatible with the conceptual framework than the perception held by internal auditors in the public sector. This is because on most of the factors that showed significance, respondents from the private sector have a more positive perception than respondents from the public sector. However, it should be noted that, generally, respondents from both sectors have a favourable perception of the different factors, components and the framework in general.
SUMMARY & CONCLUSION

This chapter addressed itself to the significant differences between internal auditors from the public and private sectors in the way they perceive the conceptual framework for internal auditing. The conceptual framework was used as a basis of comparison to ascertain internal auditors' perception of their profession and whether this perception would differ according to the sector where internal auditors work. The research subjects were divided into three groups within each sector representing the three different levels of internal auditors. The approach used was to apply both the parametric T-test and the non-parametric Mann-Whitney test in addition to the F-test to test the difference between respondents from the two sectors in the way they perceive the 21 different factors of the framework. Meanwhile, the multivariate tests of Hotellings Trace and Wilks Lambda were used to test the differences between respondents from the two sectors in the way they perceive the four main components of the framework as well as the overall perception of the framework.

The statistical analysis revealed that at the first two levels there were significant differences between respondents from the two sectors in the way they perceive 81% of the elements of the conceptual framework. Respondents from the two sectors also showed significant perceptual differences in all four components as well as the overall perception. Meanwhile, at the top level of internal auditors (i.e. chief internal auditors) there were significant perceptual differences in about 50% of the factors that form the conceptual framework. The two groups of chief internal auditors also showed significant perceptual differences in three out of the four main components,

the only component that revealed no significance was that concerned with the conceptual aspects of the framework. Nonetheless, there was a significant difference between the two groups of chief internal auditors in the overall perception of the conceptual framework.

Furthermore, when the response of all respondents in the public sector was compared against the response of all respondents in the private sector, it was revealed that there were significant perceptual differences between respondents from the two sectors in about 72% of the different elements of the framework. The multivariate tests also revealed significant differences between respondents from the two sectors in the way they perceive the four main components of the conceptual framework, and there was also a significant difference in the overall perception of the framework.

Therefore, if statistical results are to be used to make conclusions then it could be concluded that the way internal auditors perceive their profession differs significantly according to the sector in which internal auditors work. However, it should be noted that, despite the existence of significant differences between respondents from the two sectors in most of the factors, there were some factors that showed similar perception among respondents from the two sectors. It is also important to note that the number of the factors showing no significance is highest at the top level of internal auditors, i.e. the two groups of chief internal auditors.

Moreover, studying of the median and mean scores for groups from the two sectors revealed that in most of the factors that revealed significant differences, respondents

from the private sector seem to have a perception that is more compatible with the conceptual framework than the perception held by respondents working in the public sector. This was also true in the case of the four components of the framework, where in all cases respondents from the private sector have a more favourable perception than that of respondents from the public sector. However, it should be remembered that there was only one situation where respondents from the two sectors recorded no significant perceptual difference; this was in the way the two groups of chief internal auditors perceive the first component.

However, it is of crucial importance to note that in general internal auditors from both sectors have a positive perception of all the factors that make up the conceptual framework. Thus, it could be said that internal auditors working in both the public and private sectors perceive the internal audit profession in a way that is compatible with the conceptual framework for internal auditing. Nonetheless, in some cases respondents from the public sector have a perception that is higher than that held by their counterparts in the private sector. In most of the cases internal auditors in the public sector have a higher perception that held by respondents from the public sector.

Taking all the above into consideration, it could be concluded that there is not enough statistical and empirical evidence to support the null hypothesis that proposes no significant difference between internal auditors from the two sectors in the way they perceive internal auditing. Thus, the null hypothesis could not be accepted.

TABLE (7.9)1PERCEPTIONPUBLIC SECTOR VS PRIVATE SECTORINTERNAL AUDITORSMEAN SCORES

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| VARIABLE | PUA | PRA |
|--|-------|--------|
| Definition & Objective of Internal Auditing | 19.95 | 19.74 |
| Scope of Audit Work | 11.53 | 12.64 |
| Common Concepts | 10.99 | 11.81 |
| Planning the Audit (Selecting the Auditee) | 7.97 | 8.66 |
| Planning the Audit (Selecting the Auditor) | 3.67 | 3.98 |
| Planning the Audit (Setting the Time, Objective & | 15.40 | 15.94 |
| Scope, Preliminary Survey, Audit Programme) | | |
| Field Work | 16.68 | 19.98 |
| Reporting Findings & Recommendations | 8.69 | 9.23 |
| Follow-up | 7.05 | 6.60 |
| Audit Measures | 4.14 | 4.53 |
| Organisational Status | 15.42 | 20.28 |
| Membership of the IIA | 3.96 | 3.53 |
| Staffing, Training & Development | 14.72 | 16.00 |
| Establishing Plans, Rules & Policies | 25.75 | 19.68 |
| Relationship with Auditees | 10.97 | 12.74 |
| Relationship with Auditees (and the Audit Report) | 9.40 | 12.45 |
| Audit Committee | 7.43 | 8.09 |
| Quality Assurance | 16.32 | 16.02 |
| Relationship with External Auditors (General) | 13.60 | 16.17 |
| Relationship with External Auditors (Co-operation) | 4.88 | 7.49 |
| Environmental Responsibilities | 7.84 | 7.51 · |

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<u> Key</u>:

PUA / PRA = Public / Private Sector Internal Auditors

TABLE (7.10)1 PERCEPTION PUBLIC SECTOR VS PRIVATE SECTOR SENIOR INTERNAL AUDITORS MEAN SCORES

| VARIABLE | PUM | PRM |
|--|--------|-------|
| Definition & Objective of Internal Auditing | 23.58 | 21.21 |
| Scope of Audit Work | 11.67 | 12.97 |
| Common Concepts | 12.34 | 11.94 |
| Planning the Audit (Selecting the Auditee) | 7.52 | 8.27 |
| Planning the Audit (Selecting the Auditor) | 3.37 | 4.30 |
| Planning the Audit (Setting the Time, Objective & | 16.30 | 15.39 |
| Scope, Preliminary Survey, Audit Programme) | | |
| Field Work | _20.01 | 20.03 |
| Reporting Findings & Recommendations | 10.13 | 12.12 |
| Follow-up | 7.67 | 8.60 |
| Audit Measures | 4.21 | 4.29 |
| Organisational Status | | 20.61 |
| Membership of the IIA | 3.94 | 4.03 |
| Staffing, Training & Development | 14.94 | 16.30 |
| Establishing Plans, Rules & Policies | 27.49 | 26.36 |
| Relationship with Auditees | 10.49 | 13.55 |
| Relationship with Auditees (and the Audit Report) | 10.39 | 12.30 |
| Audit Committee | 7.07 | 8.33 |
| Quality Assurance | | 15.76 |
| Relationship with External Auditors (General) | 13.58 | 16.73 |
| Relationship with External Auditors (Co-operation) | 6.07 | 7.85 |
| Environmental Responsibilities | 7.72 | 7.88 |

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¹ Key: PUM / PRM = Public / Private Sector Senior Internal Auditors

TABLE (7.11)¹ PERCEPTION PUBLIC SECTOR VS PRIVATE SECTOR CHIEF INTERNAL AUDITORS MEAN SCORES

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|--|-------|-------|
| VARIABLE | PUC | PRC |
| Definition & Objective of Internal Auditing | 27.03 | 26.00 |
| Scope of Audit Work | 13.57 | 13.59 |
| Common Concepts | 14.06 | 14.07 |
| Planning the Audit (Selecting the Auditee) | 8.72 | 9.41 |
| Planning the Audit (Selecting the Auditor) | 3.44 | 4.30 |
| Planning the Audit (Setting the Time, Objective & | 19.00 | 18.67 |
| Scope, Preliminary Survey, Audit Programme) | | |
| Field Work | 22.59 | 21.33 |
| Reporting Findings & Recommendations | 11.38 | 11.37 |
| Follow-up | 8.97 | 8.56 |
| Audit Measures | 4.88 | 4.52 |
| Organisational Status | 18.53 | 23.67 |
| Membership of the IIA | 4.56 | 4.33 |
| Staffing, Training & Development | 16.59 | 17.22 |
| Establishing Plans, Rules & Policies | 32.31 | 29.52 |
| Relationship with Auditees | 11.53 | 14.00 |
| Relationship with Auditees (and the Audit Report) | 11.91 | 13.33 |
| Audit Committee | 9.00 | 8.15 |
| Quality Assurance | 19.06 | 17.63 |
| Relationship with External Auditors (General) | 15.53 | 18.96 |
| Relationship with External Auditors (Co-operation) | 7.38 | 7.63 |
| Environmental Responsibilities | 8.25 | 8.67 |

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<u>¹Key</u>: PUC / PRC = Public / Private Sector Chief Internal Auditors

TABLE (7.12)¹ PERCEPTION PUBLIC SECTOR VS PRIVATE SECTOR ALL RESPONDENTS MEAN SCORES

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| VARIABLE | PUALL | PRALL |
|--|--------|-----------------|
| Definition & Objective of Internal Auditing | 22.421 | 21.776 |
| Scope of Audit Work | 11.937 | 12.981 |
| Common Concepts | 11.983 | 12.421 |
| Planning the Audit (Selecting the Auditee) | 7.937 | 8.729 |
| Planning the Audit (Selecting the Auditor) | 3.826 | 4.159 |
| Planning the Audit (Setting the Time, Objective & | 16.321 | 16.458 |
| Scope, Preliminary Survey, Audit Programme) | | |
| Field Work | 18.853 | 20.336 |
| Reporting Findings & Recommendations | 9.653 | 1 <u>0</u> .664 |
| Follow-up | 7.595 | 7.710 |
| Audit Measures | 4.289 | 4.486 |
| Organisational Status | 16.858 | 21.234 |
| Membership of the IIA | 4.053 | 3.888 |
| Staffing, Training & Development | 15.116 | 16.402 |
| Establishing Plans, Rules & Policies | 27.468 | 24.224 |
| Relationship with Auditees | 10.895 | 13.308 |
| Relationship with Auditees (and the Audit Report) | 10.168 | 12.626 |
| Audit Committee | 7.568 | 8.178 |
| Quality Assurance | 16.863 | 16.346 |
| Relationship with External Auditors (General) | 13.921 | 17.047 |
| Relationship with External Auditors (Co-operation) | 5.721 | 7.636 |
| Environmental Responsibilities | 7.863 | 7.981 |

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<u>¹ Key</u>: PUAII / PRAII = Public / Private Sector All Respondents

TABLE (7.13)¹ PERCEPTION PUBLIC SECTOR VS PRIVATE SECTOR ALL RESPONDENTS MEDIAN SCORES

| VARIABLE | PUALL | PRALL |
|---|------------|-------|
| Definition & Objective of Internal Auditing | 23 | 21 |
| Scope of Audit Work | 12 | 13 |
| Common Concepts | 12 | 12 |
| Planning the Audit (Selecting the Auditee) | 8 | 9 |
| Planning the Audit (Selecting the Auditor) | 4 | 4 |
| Planning the Audit (Setting the Time, Objective & Scope, Preliminary Survey, Audit Programme) | 16 | 16 |
| Field Work | 20 | 20 |
| Reporting Findings & Recommendations | 10 | 11 |
| Follow-up | 8 | 8 |
| Audit Measures | 4 | 5 |
| Organisational Status | 16 | 21 |
| Membership of the IIA | 4 | 4 |
| Staffing, Training & Development | 15 | 16 |
| Establishing Plans, Rules & Policies | 28 | 26 |
| Relationship with Auditees | 11 | 13 |
| Relationship with Auditees (and the Audit Report) | <u>1</u> 0 | 12 |
| Audit Committee | 8 | 8 |
| Quality Assurance | 17 | 16 |
| Relationship with External Auditors (General) | <u>1</u> 4 | 16 |
| Relationship with External Auditors (Co-operation) | 6 | 8 |
| Environmental Responsibilities | 8 | 8 |

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¹<u>Kev</u>: PUAII / PRAII = Public / Private Sector All Respondents

CHAPTER EIGHT

8. SIGNIFICANT INTRA-SECTOR DIFFERENCES IN THE PERCEPTION OF INTERNAL AUDITING

In this chapter the response of the three research groups within each sector was analysed to test the second research hypothesis which proposes a difference in the perception of the conceptual framework of internal auditing between different levels of internal auditors. Thus, the hypothesis predicts differences in the perception between the group of internal auditors and the group of senior internal auditors / internal audit managers, the group of internal auditors and the group of chief internal auditors, and the group of senior internal auditors / internal auditors, and the group of senior internal auditors / internal audit managers and the group of chief internal auditors. These differences are predicted because of the assumption of different levels of organisational and professional commitment between these groups. Also, the level of experience is always bound to affect the way internal auditors perceive their profession.

The response of all three groups in each sector was again subjected to both parametric and non-parametric statistical tests in order to attest the validity of the second research hypothesis. Therefore, the analysis was carried out in three parts. First, public sector response was analysed using both the parametric T-test and the non-parametric Mann-Whitney test. The tests were used on the scores for the 21 elements of the conceptual framework and for the four components as well as the overall the score for the framework. The same

procedures were followed in the case of the private sector, and finally the response of all respondents in each of the three levels was analysed against the response from all respondents in each of the two other levels. Having analysed the differences between the different research groups using univariate analysis, multivariate analysis was adopted to analyse the differences between the groups on different clusters of the dependent variables.

8.1 Public Sector - Perceptual Differences on the Different Elements of the Conceptual Framework

8.1.1 Significant intra-auditor Mann-Whitney and T-test differences between internal auditors and senior internal auditors / internal audit managers

The results of the parametric and non-parametric tests are provided in table 8.1 which reveal a high degree of compatibility between the results obtained from the two tests. The Mann-Whitney test reveals significant differences in 15 out of the 21 elements with no significant differences revealed in the elements concerning the scope of audit work, selecting the auditor, membership of the IIA, staffing training anddevelopment, relationship with external auditors (general), and environmental responsibilities.

The results from the T-test reveal only 11 cases of significant differences between the two group under examination and these 11 elements had also showed significant differences under the Mann-Whitney test. This means that the only difference between the results obtained from the two tests was a small number of cases that revealed significant differences under Mann-Whitney but showed no significance under the T-test. These elements are: audit measures; relationship with auditees; audit committee; and quality assurance.

So, it could be deducted that auditors with more experience and at a higher organisational level perceive some aspects of the internal audit profession in a more positive way than auditors with less experience. Thus, we could draw the conclusion that the way internal auditors perceive their profession is influenced by the audit experience they possess. This would also explain the average number of differences revealed between respondents from the two levels as there are a number of respondents at the two levels who possess almost similar knowledge and experience. The results discussed above lead us to conclude that the null hypothesis predicting no influence of the level of internal auditors on their perception of the internal audit profession could not be accepted.

8.1.2 Significant intra-auditor Mann-Whitney and T-test differences between internal auditors and chief internal auditors

Table 8.2 provides the results of the parametric T-test and non-parametric Mann-Whitney test for the two groups under examination. The table reveals an almost identical structure for the two results. The Mann-Whitney test reveals significant differences in 19 out of 21 different aspects of the conceptual framework, with only two aspects not showing any significant differences - these two elements are selecting the auditor and relationship with auditees. The T-test provides a similar result with merely one element that was significant under Mann-Whitney showing no significance under the T-test, this being environmental responsibilities. All the other results show an absolute consistency under both tests.

Studying these results it would appear that the superior experience that chief internal auditors possess led to them having a perception that is more favourable of almost all the different aspects of internal auditing than that held by junior auditors. Therefore, the null hypothesis should be rejected as it is apparent that auditors with higher experience and professional and organisational commitment perceive the profession in a significantly more positive manner from that of auditors with less experience.

8.1.3 Significant intra-auditor Mann-Whitney and T-test differences between senior internal auditors / internal audit managers and chief internal auditors

The results given in table 8.3 are those for the analysis of the third and final pairing in the public sector which compares the perception held by the middle level of internal auditors (i.e. senior internal auditors) with the perception held by the top level of internal auditors (i.e. chief internal auditors). The table reveals absolute identical results obtained from both the parametric and non-parametric tests. In both cases there were 18 situations where significant differences between the perception of two groups occurred. The three elements where there were no significant differences between the two elements were: selecting the auditor, organisational status, and environmental responsibilities.

Again, all the differences resulted from chief internal auditors having more positive perception than senior internal auditors. This meant that the level of internal auditors and their experience influenced their perception of the internal audit profession which leads us to reject the null hypothesis.

8.1.4 Significant intra-auditor ANOVA differences between the three different levels of internal auditors in the public sector Table 8.4 shows the results of the analysis of variance performed on the response of the different groups representing the three different levels

of internal auditors in the public sector. The analysis of the variance test was accompanied by the Scheffe test which was performed as an optional post hoc test. The reason for performing this test was to get an insight into what cause the difference (if any) in the perception of any of the factors. The table reveals that there were significant differences between the three groups in the way they perceive 19 out of the 21 factors, with only the factors concerning selecting the auditor to carry out the audit task and the environmental responsibilities of internal audit showing no significance. The post hoc Scheffe test shows that the reason for the insignificance was that none of the three groups showed significant perceptual difference from the other two groups. The Scheffe test also reveals that on factors 1, 3, 4, 6, 7, 8, 9, 14, 16 and 20 the significant differences were caused by significant perceptual differences between the three groups. On all but one of these factors the perception became significantly higher as the level of auditors rose. The only exception was in the case of factor 4 regarding selecting the auditee where the group of internal auditors seems to have a higher perception than that held by senior internal auditors.

Meanwhile, the significance on factors 2, 10, 12, 13, 17, 18, and 19 was caused by significant perceptual differences between the group of chief internal auditors and the other two groups. However, there were no significant differences between the groups of internal auditors and senior internal auditors. Looking at the mean scores, on all of these

factors chief internal auditors have a perception that is more positive than that held by internal auditors and senior internal auditors. Meanwhile, on the factor concerning the organisational status of the internal audit department, the significance was the result of respondents from the first level having significantly different perception from that held by respondents from the other two levels. On the other hand, the significant perceptual difference on the factor examining the relationship with auditees was due to a significant difference between the senior internal auditors and chief internal auditors.

<u>TABLE (8.1)¹</u> <u>PERCEPTION</u> <u>PUBLIC SECTOR</u> INTERNAL AUDITORS VS SENIOR INTERNAL AUDITORS **T-TEST & MANN-WHITNEY**

| VARIABLE | T-TEST | MANN-WHITNEY |
|---|----------|--------------|
| Definition & Objective of Internal Auditing | -8.72*** | 1065*** . |
| Scope of Audit Work | 0.78 | 2775 |
| Common Concepts | -6.46*** | 1611*** |
| Planning the Audit (Selecting the Auditee) | 2.15** | 2743.5 |
| Planning the Audit (Selecting the Auditor) | 1.50 | 2886 |
| Planning the Audit (Setting the Time, Objective & Scope, Preliminary Survey, Audit Programme) | -3.88*** | 2094.5*** |
| Field Work | -8.30*** | 1013.5*** |
| Reporting Findings & Recommendations | -6.19*** | 1468.5*** |
| Follow up | -3.09*** | 2225.5*** |
| Audit Measures | -0.51 | 2394.5*** |
| Organisational Status | -6.02*** | 1419.5*** |
| Membership of the IIA | 0.18 | 3019 |
| Staffing, Training & Development | 0.88 | 2832 |
| Establishing Plans, Rules & Policies | -3.65*** | 1998*** |
| Relationship with Auditees | 1.56 | 2476.5** |
| Relationship with Auditees (and the Audit Report) | -3.71*** | 2107*** |
| Audit Committee | 1.47 | 2692.5 |
| Quality Assurance | -1.14 | 2656 |
| Relationship with External Auditors (General) | 0.07 | 3022 |
| Relationship with External Auditors (Co-operation) | -5.43*** | 1629*** |
| Environmental Responsibilities | 0.55 | . 2802 |

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¹<u>Key</u>: *** Significant @ 99%

^{**} Significant @ 95%

^{*} Significant @ 90%

TABLE (8.2)1 PERCEPTION PUBLIC SECTOR INTERNAL AUDITORS VS CHIEF INTERNAL AUDITORS **T-TEST & MANN-WHITNEY**

| VARIABLE | T-TEST | MANN-WHITNEY |
|---|-----------|--------------|
| Definition & Objective of Internal Auditing | -14.35*** | 72*** |
| Scope of Audit Work | -9.01*** | 217*** |
| Common Concepts | -12.23*** | 154.5*** |
| Planning the Audit (Selecting the Auditee) | -3.35*** | 837.5*** |
| Planning the Audit (Selecting the Auditor) | 0.78 | 1405.5 |
| Planning the Audit (Setting the Time, Objective & Scope, Preliminary Survey, Audit Programme) | -12.90*** | 78.5*** |
| Field Work | -9.37*** | 232*** |
| Reporting Findings & Recommendations | -6.40*** | 495*** |
| Follow up | -7.77*** | 354.5*** |
| Audit Measures | -9.61*** | 404*** |
| Organisational Status | -4.00*** | 778.5*** |
| Membership of the IIA | -4.05*** | 594*** |
| Staffing, Training & Development | -7.22*** | 407*** |
| Establishing Plans, Rules & Policies | -12.42*** | 70*** |
| Relationship with Auditees | -1.30 | 1185.5 |
| Relationship with Auditees (and the Audit Report) | -7.65*** | 374.5*** |
| Audit Committee | -6.13*** | 532.5*** |
| Quality Assurance | -12.43*** | 147.5*** |
| Relationship with External Auditors (General) | -4.05*** | 791.5*** |
| Relationship with External Auditors (Co-operation) | -6.93*** | 444.5*** |
| Environmental Responsibilities | -1.15 | + 1105.5** |

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<u>¹ Key:</u> *** Significant @ 99%

^{**} Significant @ 95% * Significant @ 90%

TABLE (8.3)¹ PERCEPTION PUBLIC SECTOR SENIOR INTERNAL AUDITORS VS CHIEF INTERNAL AUDITORS **T-TEST & MANN-WHITNEY**

| VARIABLE | T-TEST | MANN-WHITNEY |
|---|----------|--------------|
| Definition & Objective of Internal Auditing | -9.17*** | 203*** |
| Scope of Audit Work | -8.24*** | 213.5*** |
| Common Concepts | -7.48*** | 312.5*** |
| Planning the Audit (Selecting the Auditee) | -3.70*** | 608*** |
| Planning the Audit (Selecting the Auditor) | -0.20 | 1027 |
| Planning the Audit (Setting the Time, Objective & | -8.89*** | 202*** |
| Scope, Preliminary Survey, Audit Programme) Field Work | -4.36*** | 377*** |
| Reporting Findings & Recommendations | -2.89*** | 699*** |
| Follow up | -4.83*** | 460*** |
| Audit Measures | -4.87*** | 628*** |
| Organisational Status | -0.65 | 854.5 |
| Membership of the IIA | -3.84*** | 486*** |
| Staffing, Training & Development | -5.67*** | 471*** |
| Establishing Plans, Rules & Policies | -7.61*** | 199*** |
| Relationship with Auditees | -2.29** | 794** |
| Relationship with Auditees (and the Audit Report) | -4.57*** | 548*** |
| Audit Committee | -6.54*** | 380.5*** |
| Quality Assurance | -8.86*** | 192.5*** |
| Relationship with External Auditors (General) | -3.80*** | 592.5*** |
| Relationship with External Auditors (Co-operation) | -3.40*** | 617.5*** |
| Environmental Responsibilities | -1.43 | · 822* |

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<u>¹ Key</u>: *** Significant @ 99%

^{**} Significant @ 95% * Significant @ 90%

<u>TABLE (8.4)</u> <u>PERCEPTION</u> <u>PUBLIC SECTOR</u> <u>ALL THREE LEVELS</u> <u>ANOVA WITH SCHEFFE</u>

| Factor | F-ratio | <u>F-ratio</u> <u>F-prob</u> . | | <u>e Scheffe Test</u> | | | |
|--------|---------|--------------------------------|----------------|-----------------------|----------|-------------|---|
| | | | Mean | <u>Level</u> | + | <u>Grou</u> | |
| | | _ | | | 1 | 2 | 3 |
| FI | 90.130 | 0.000 | 19.945 | 1 | | | |
| | | | 23.582 | 2 | S | | |
| | | | 27.031 | 3 | S | S | |
| F2 | 44.141 | 0.000 | 11.528 | 1 | | | |
| | | | 11.672 | 2 | | _ | |
| | | | 13.656 | 3 | S | <u> </u> | |
| F3 | 66.747 | 0.000 | 10.989 | 1 | | | |
| | | | 12.343 | 2 | S | _ | |
| | | | 14.063 | 3 | S | S | |
| F4 | 11.742 | 0.000 | 7.967 | 1 | | | |
| | | | 7.522 | 2 | S | | |
| | | | 8.719 | 3 | s | S | L |
| F5 | 1.215 | 0.299 | 3.670 | 1 | 1 | | |
| | | | 3.373 | 2 | | 1 | |
| | | | | 3 | <u> </u> | | |
| F6 | 77.365 | 0.000 | 15.396 | 1 | | | |
| | | | 16.299 | 2 | S | | |
| | | | 19.000 | 3 | S | S | |
| F7 | 64.866 | 0.000 | 16.681 | 1 | | | |
| | | | 20.015 | 2 | S | | |
| | | | 22.594 | 3 | ' S_ | S | |
| F8 | 37.972 | 0.000 | 8.692 | 1 | | | |
| | | | 10.134 | 2 | S | | |
| | | | 11.375 | 3 | S | S | |
| F9 | 28.905 | 0.000 | 7.055 | 1 | | | |
| | | | 7.672 | 2 | S | | |
| | | | 8.969 | 3 | S | S | |
| F10 | 14.923 | 0.000 | 4.143 | 1 | | | |
| | | | 4.209 | 2 | | | |
| | | | 4.875 | 3 | S | S | |
| FII | 20.946 | 0.000 | 15.418 | 1 | | | |
| | | | 18.015 | 2 | S | | |
| | | | 18.531 | 3 | S | L | |
| F12 | 13.878 | 0.000 | √ 3.956 | 1 | l l | | |
| | | | 3.940 | 2 | | | |
| | | | 4.563 | 3 | S | S | |
| F13 | 21.483 | 0.000 | 14.725 | 1 | | | |
| | | | 14.940 | 2 | | | |
| | | | 16.594 | 3 | <u> </u> | S | |
| F14 | 63.156 | 0.000 | 25.747 | 1 | | | |
| | | | 27.493 | 2 | S | | |
| | | | 32.313 | 3 | S | S | |
| F15 | 3.340 | 0.038 | 10.967 | 1 | | | |
| | | | 10.493 | 2 | | | |
| | | | 11531 | 3 | | S | |

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TABLE (8.4) cont.

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| Г | Factor | F-ratio | F-prob. | Multiple Range Scheffe Test (sign. level . | | | .05) | |
|---|--------|---------|---------|--|-------|---|----------|---|
| . | | | | Mean | Level | | Group | 2 |
| | | | | | | 1 | 2 | 3 |
| ſ | F16 | 28.933 | 0.000 | 9.396 | 1 | | | |
| | | | | 10.388 | 2 | S | | |
| | | | | 11.906 | 3 | S | S | |
| Г | | 21.215 | 0.000 | 7.429 | 1 | | | |
| [| | | | 7.075 | 2 | | | |
| | | | | 9.000 | 3 | S | <u> </u> | |
| Γ | F18 | 65.139 | 0.000 | 16.319 | 1 | | | |
| | | | | 16.552 | 2 | | | |
| | | | | 19.063 | 3 | S | S | |
| F | F19 | 9.821 | 0.000 | 13.604 | 1 | | | |
| | | | | 13.582 | 2 | | | |
| | | | | 15.531 | 3 | S | S | |
| | F20 | 37.145 | 0.000 | 4.879 | 1 | | | |
| | | | | 6.075 | 2 | S | | |
| | | | | 7.375 | 3 | S | S | |
| | F21 | 1.655 | 0.194 | 7.835 | 1 | | | |
| | | | | 7.716 | 2 | | | |
| | | | | 8.375 | 3 | | | |

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8.2 Public Sector - Perceptual Differences on the Four Components of the Conceptual Framework

Having studied the differences between the three research groups within each of the two sectors, it was necessary to examine the difference in the perception of the four main components as well as overall perception of the conceptual framework. To do so the response of respondents from the different groups was subjected to the multivariate data analysis techniques using the two tests of Hotellings Trace and Wilks Lambda. The tests were used to analyse the response of each of the three groups against that of one of the other two. The tests were also used to analyse the response from all three groups at the same time. The statistical software used to perform the multivariate tests also permitted performing post hoc tests to justify the results of the multivariate tests. The post hoc test was the univariate F-ratio test in the case of two groups comparison, and the Scheffe test in the case of three groups comparison.

As well as analysing the inter-level within each of the two sectors, the response of those at each level from both the public and private sectors is compared with that of each of the other two levels. Also, the response of all those from the three levels is analysed to examine the differences across the three levels.

8.2.1 Significant MANOVA differences between internal auditors and senior internal auditors / internal audit managers

Table 8.5 shows the results of the multivariate analysis of the response of the first two levels of internal auditors in the public sector. This is the analysis performed on the different groups of factors that form the four components. And on all four components to attest the perception of the frmework in general. The first thing to be noted from the table is the existence of significant differences between the two groups under examination in the perception of all four components, as well as the overall perception of the framework.

There was significant difference between internal auditors and senior internal auditors in the public sector in the way they perceived the component dealing with the conceptual matters of the framework. This difference was generated by significant perceptual differences between the two groups in two of the three factors that make up the component. These were the factors examining the definition and objective of internal auditing, and common concepts of internal auditing. On both factors the perception held by senior internal auditors was significantly higher than that held by internal auditors as it could be seen from the mean scores. However, both groups appear to have a similar perception of the scope of audit work.

Similarly the operational component revealed a significant perceptual difference between the two levels of auditors, and it could be seen from the post hoc test result that the difference was generated by significant differences between the two groups in five out of the seven factors that form the component. It seems from looking at the mean scores that senior internal auditors in the public sector have a higher perception than internal auditors regarding: planning the audit; field work; reporting findings and recommendations; and follow-up. However, the factor examining the process of selecting the auditee revealed more positive perception among internal auditors than senior internal auditors. Though there was no significant perceptual differences in the remaining two factors, it appears that in general senior internal auditors have a more positive perception of the operational component than internal auditors.

It also appears from the results of both multivariate tests that internal auditors in the public sector perceive the organisational component in a significantly different manner from that of senior internal auditors working in the same sector. This significant difference was the result of the two groups having significant perceptual differences on the factors concerning: organisational status; establishing plans, rules and policies; and relationship with auditees (and the audit report). All these factors reveal a more positive perception among senior internal auditors than among internal auditors. Thus, it could be concluded that senior

internal auditors have a more favourable perception of the organisational component than that held by internal auditors within the same sector.

Furthermore, the table reveals a significant difference between the two groups in the way they perceive the fourth component that deals with the external aspects of the framework. The post hoc univariate test shows that this significant difference was created by significant differences between the two levels of auditors in one out of the three factors examining the different facets of the external component. It seems that senior internal auditors have a more positive perception of the factor regarding relationship with external auditors (co-operation) than the perception held by internal auditors. Hence, it would appear that senior internal auditors have a more favourable perception of the external component than internal auditors working in the public sector.

Moreover, the overall perception of the conceptual framework differs significantly between the two levels of internal auditors, as could be seen from the results of both the Hotellings and Wilks Lambda tests. The difference was generated by significant univariate differences in 11 out of the 21 factors that make up the framework. In all of the cases that showed significance senior internal auditors had a more positive perception than internal auditors. Thus, it could be said that senior

internal auditors have a perception that is more compatible with the conceptual framework than the perception held by internal auditors.

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TABLE (8.5) PERCEPTION OF INTERNAL AUDIT PUBLIC SECTOR INTERNAL AUDITORS VS SENIOR INTERNAL AUDITORS MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA

First Component

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| Multivar | riate te | sts of s | significanc | e | Post l | noc Univar | iate F-test |
|------------------|-------------|-------------|-------------|------------------|-------------|------------|------------------|
| <u>Test Narr</u> | <u>1e \</u> | /alue_ | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
| Hotelling | gs (|).487 | 24.996 | 0.000 | F1 | 62.848 | 0.000 |
| Wilks | C |).623 | 24.996 | 0.000 | F2 | 0.615 | 0.434 |
| | | | | | F3 | 37.288 | 0.000 |
| Second C | Compo | <u>nent</u> | | | | | |
| Multivar | riate te | sts of s | ignificanc | е | | | |
| <u>Test Nam</u> | <u>ne N</u> | /alue_ | <u> </u> | <u>Sig. of F</u> | | | |
| Hotelling | gs C | .958 | 20.539 | 0.000 | | | |
| Wilks | C | 0.511 | 20.539 | 0.000 | | | |
| Post hoc | Univa | riate F | -test | | | | |
| <u>Var.</u> | <u> </u> | Sig. | of F | | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
| F4 | 5.903 | 0.0 | 16 | | F8 | 38.260 | 0.000 |
| F5 | 2.584 | 0.1 | 10 | | F9 | 9.559 | 0.002 |
| F6 1 | 5.064 | 0.0 | 00 | | F10 | 0.328 | 0.568 |
| F7 6 | 60.555 | 0.0 | 00 | | | | |

Third Component

| Multivariate tests of significance | | | | | | | |
|------------------------------------|-------|----------|------------------|--|--|--|--|
| <u>Test Name</u> | Value | <u> </u> | <u>Sig. of F</u> | | | | |
| Hotellings | 0.533 | 9.923 | 0.000 | | | | |
| Wilks | 0.652 | 9.923 | 0.000 | | | | |

Post hoc Univariate F-test

| <u>Var.</u> | <u>F</u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|-------------|----------|------------------|-------------|----------|------------------|
| FH | 36.288 | 0.000 | F15 | 2.588 | 0.110 |
| F12 | 0.031 | 0.860 | F16 | 13.736 | 0.000 |
| F13 | 0.844 | 0.360 | F17 | 2.350 | 0.127 |
| F14 | 13.307 | 0.000 | F18 | 1.413 | 0.236 |

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Fourth Component

| Multivariate tests of significance | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | |
| Hotellings | 0.192 | 9.870 | 0.000 | | |
| Wilks | 0.839 | 9.870 | 0.000 | | |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | Sig. of F |
|-------------|----------|-----------|
| F19 | 0.004 | 0.948 |
| F20 | 29.435 | 0.000 |
| F21 | 0.363 | 0.548 |

<u>Overall</u>

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 3.125 | 20.239 | 0.000 | | | |
| Wilks | 0.242 | 20.239 | 0.000 | | | |

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8.2.2 Significant MANOVA differences between internal auditors and chief internal auditors

In this section the response obtained from the group that represents the first level of internal auditors is compared with that obtained from the group of chief internal auditors representing the top level of internal auditors. The result of the analysis is shown in table 8.6. It could be noted from the table that there are significant differences between the two groups in the perception of all four components as well as the overall perception of the conceptual framework.

In the case of the first component the two groups show a significant perceptual difference, which was mainly due to them having significant perceptual differences on all the three factors forming the component. It seems that on all three factors chief internal auditors have a significantly higher perception than that held by internal auditors. This means that the perception held by chief internal auditors regarding the first component is more compatible with the framework than that held by internal auditors working in the public sector.

Similarly, the second component that deals with the operational matters of internal audit was perceived in a significantly different manner by the two levels. As can be seen from the table, both the Hotellings and Wilks Lambda tests reveal a significant perceptual difference between the two groups. However, looking at the post hoc univariate test, it

appears that the significant difference on the second component was caused by significant perceptual differences between the two groups in six out of the seven factors under the component. The mean scores of the two groups reveal a more positive perception among chief internal auditors than among internal auditors on all of these six factors. The only factor that reveals no significant perceptual difference was that examining the operational process of selecting the auditor to carry out the audit task. But it could be said that in general chief internal auditors have a perception of the operational component that is more compatible with the framework than that held by internal auditors.

The two groups also showed a significantly different perception of the third components that deals with the organisational matters of the conceptual framework, as can be seen from the results of both multivariate tests. This was justified by significant differences in seven out of the eight factors forming the component. All of these factors revealed a more favourable perception among chief internal auditors than among internal auditors. Though the factors regarding the relationship with the auditees revealed no significant perceptual difference between the two levels, it can still be concluded that chief internal auditors have a perception of the organisational component that is more compatible with the framework than the perception held by internal auditors.

The analysis of the response to the external component also reveal a significant perceptual difference between the two groups under examination. This significant difference could be explained by the significant differences that exist in two of the three factors making up the component, as can be seen from the results of the post hoc univariate F-test. Both factors are examining different aspects of the relationship with the external auditors, and it seems that chief internal auditors have a perception of the relationship with external auditors that is more compatible with the framework than the perception held by internal auditors. Hence, the same could be said about the perception of the external component.

Moreover, the table reveals that the two groups perceive the conceptual framework, in general, in a significantly different way. Both multivariate tests reveal a significant difference between the two levels of internal auditors in their overall perception of the framework. The difference could be justified by the existence of significant differences in 18 out of 21 factors that make up the conceptual framework. Since on all these factors chief internal auditors have mean scores that are significantly higher than those scored by internal auditors, it could be said that in general chief internal auditors have a perception of the internal audit profession that is more compatible with the conceptual framework than the perception held by internal auditors. However, it

should be noted that both levels showed positive perception of the

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conceptual framework.

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TABLE (8.6) PERCEPTION OF INTERNAL AUDIT PUBLIC SECTOR INTERNAL AUDITORS VS CHIEF INTERNAL AUDITORS MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA

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First Component

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| Multivariate | | significanc | e | Post | hoc Univari | iate F-test |
|----------------------|--------------|---------------|---------------------------|-------------|-------------|------------------|
| Test Name | Value | F | <u>Sig. of F</u> | Var. | F | Sig. of F |
| Hotellings | 2.065 | 81.924 | 0.000 | | 120.707 | 0.000 |
| Wilks | 0.326 | 81.924 | 0.000 | F2 | 81.186 | 0.000 |
| | | | | F3 | 105.349 | 0.000 |
| Second Com | ponent | | | | | |
| Multivariate | tests of s | ignificanc | e | | | |
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 5.481 | 90.040 | 0.000 | | | |
| Wilks | 0.154 | 90.040 | 0.000 | | | |
| | | | | | | |
| Post hoc Uni | | | | | | |
| <u>Var.</u> <u>F</u> | _ | <u>of F</u> | | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
| F4 21.47 | | | | F8 | 60.836 | 0.000 |
| F5 1.02 | | | | F9 | 60.406 | 0.000 |
| F6 166.32 | | | | F10 | 92.265 | 0.000 |
| F7 87.72 | 28 0.0 | 00 | | | | |
| | | | | | | |
| Third Comp | | ·: r · | _ | | | |
| Multivariate | | Q | | | | |
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> 0.000 | | | |
| Hotellings | 4.163 | | - | | | |
| Wilks | 0.194 | 59.322 | 0.000 | | | |
| Post hoc Uni | variate F | -test | | | | · |
| Var. F | Sig. | | | | _ | |
| F11 23.89 | | 000 | | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
| F12 26.53 | |)00 | | F15 | 2.252 | 0.136 |
| F13 52.12 | |)00 | | F16 | 58.536 | 0.000 |
| FI4 154.33 | | 000 | | F17 | 37.570 | 0.000 |
| | | | | F18 | 154.452 | 0.000 |
| | | | | | | |

Fourth Component

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------------|----------|-----------|--|--|--|
| Test Name | <u>Value</u> | <u> </u> | Sig. of F | | | |
| Hotellings | 0.704 | 27.925 | 0.000 | | | |
| Wilks | 0.587 | 27.925 | 0.000 | | | |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|-------------|----------|------------------|
| F19 | 16.370 | 0.000 |
| F20 | 70.487 | 0.000 |
| F21 | 2.643 | 0.107 |
| | | |

<u>Overall</u>

| Overan | | | | | | | |
|------------------------------------|--------------|----------|-----------|--|--|--|--|
| Multivariate tests of significance | | | | | | | |
| <u>Test Name</u> | <u>Value</u> | <u> </u> | Sig. of F | | | | |
| Hotellings | 14.129 | 67.955 | 0.000 | | | | |
| Wilks | 0.066 | 67.955 | 0.000 | | | | |

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8.2.3 Significant MANOVA differences between senior internal auditors and chief internal auditors

Table 8.7 shows the results of the analysis of response from the two groups of senior internal auditors and chief internal auditors in the public sector. These two groups represent the middle and top levels of internal auditors respectively. Both multivariate tests reveal a significant perceptual difference between the two groups of auditors on the first component, which is concerned with the conceptual matters of the framework. This significant difference was instigated by significant differences between the two groups in all three factors examining different aspects of the first component. These three factors appear to be perceived more favourably by the group of chief internal auditors than the group of senior internal auditors. Hence, it could be concluded that chief internal auditors in the public sector perceive the first component of the framework in a more positive manner than that of senior internal auditors working in the same sector.

The table also reveals a significant difference in the perception of the operational component between the two levels of internal auditors. This significant difference could be explained by the result of the post hoc F-test which reveals significant perceptual differences in six out of seven factors that examine different aspects of the component. Again, chief internal auditors seem to perceive all six operational factors in a more positive way than senior internal auditors. However, both levels

recorded relatively high perception as can be seen from the mean scores of the two groups. The only factor that did not reveal any significant difference between the two groups was that regarding the process of selecting the auditor to perform the audit. Hence, it could be concluded that chief internal auditors have a more positive perception of the operational component than senior internal auditors.

A similar pattern of results was obtained in the case of the third component of the conceptual framework. This component deals with the organisational aspects of the framework. Both the Hotellings and Wilks Lambda tests reveal a significant perceptual difference which is explained by the results of the post hoc univariate test. The F-test reveals that the difference was caused by significant differences between the two groups in seven out of the eight factors that make up the component. The only factor with no significance was that related to the organisational status of the internal audit department. On all seven factors showing significance, chief internal auditors scored significantly higher mean scores than those scored by senior internal auditors. This implies that chief internal auditors have a higher perception of these factors than senior internal auditors. This meant that chief internal auditors in the public sector have a perception of the internal audit profession that is more compatible with the conceptual framework than the perception held by senior internal auditors working

in the same sector. However, it is to be noted that respondents from both levels recorded a high perception of the organisational component.

Furthermore, the two groups seem to have a significantly different perception of the external component, as can be seen from the results of both multivariate tests shown in table 8.7. The table also shows that the difference was a result of the chief internal auditors perceiving the two factors on the relationship with external auditors in a significantly more positive manner than senior internal auditors. Thus, it could be said that chief internal auditors have a more favourable perception than that held by senior internal auditors.

Finally, the table also reveals a significant difference between the two levels of internal auditors in their overall perception of the conceptual framework. This difference was a result of the two groups showing significant differences in 18 out of the 21 factors that make up the framework. All of these factors were perceived more positively by the chief internal auditors rather than senior internal auditors, though the perception held by both groups was highly favourable. Thus, it could be concluded that chief internal auditors in the public sector have a more positive perception of the conceptual framework than senior internal auditors working in the same sector.

<u>TABLE (8.7)</u> <u>PERCEPTION OF INTERNAL AUDIT</u> <u>PUBLIC SECTOR</u> <u>SENIOR INTERNAL AUDITORS VS CHIEF INTERNAL AUDITORS</u> <u>MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA</u>

First Component

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| riist Compu | ment | | | | | |
|------------------|--------------|-------------|------------------|-------------|-------------|------------------|
| Multivariate | e tests of a | significan | ce | Post | hoc Univari | iate F-test |
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u>_F</u> | <u>Sig. of F</u> |
| Hotellings | 1.606 | 50.851 | 0.000 | F 1 | 84.070 | 0.000 |
| Wilks | 0.384 | 50.851 | 0.000 | F2 | 67.822 | 0.000 |
| | | | | F3 | 55.947 | 0.000 |
| Second Com | ponent | | | | | |
| Multivariate | e tests of s | ignificanc | e | | | |
| Test Name | <u>Value</u> | | <u>Sig. of F</u> | | | |
| Hotellings | 2.112 | 27.460 | 0.000 | | | |
| Wilks | 0.321 | 27.460 | 0.000 | | | |
| | | | | | | |
| Post hoc Uni | ivariate F | -test | | | | |
| Var. F | Sig. | <u>of F</u> | | <u>Var.</u> | _F_ | <u>Sig. of F</u> |
| F4 13.7 | | | | F 8 | 11.101 | 0.001 |
| F5 0.04 | 41 0.8 | 40 | | F9 | 23.292 | 0.000 |
| F6 79.0 | 13 0.0 | 00 | | F10 | 12.204 | 0.000 |
| F7 25.74 | 42 0.0 | 00 | | | | |
| | | | | | | |
| Third Comp | onent | | | | | |
| Multivariate | | ignificance | e | | | |
| Test Name | Value | F_ | <u>Sig. of F</u> | | | |
| Hotellings | 2.993 | 33.673 | 0.000 | | | |
| Wilks | 0.250 | 33.673 | 0.000 | | | |
| | | | | | | • |
| Post hoc Uni | variate F | test | | | | |
| Var. F | Sig. | of F | | <u>Var.</u> | F | <u>Sig. of F</u> |
| F11 0.55 | | 57 | | F15 | 5.262 | 0.024 |
| F12 17.07 | | | | F16 | 18.867 | 0.000 |
| F13 25.47 | | | | F17 | 34.668 | 0.000 |
| F14 57.85 | | | | F18 | 78.587 | 0.000 |
| | | | | - 3 | . 0.207 | 0.000 |

Fourth Component

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|--|
| Test Name | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 0.249 | 7.883 | 0.000 | | | |
| Wilks | 0.800 | 7.883 | 0.000 | | | |

Post hoc Univariate F-test

| Var. | _ <u>F_</u> | Sig. of F |
|------|-------------|-----------|
| F19 | 14.451 | 0.000 |
| F20 | 13.551 | 0.000 |
| F21 | 2.051 | 0.155 |

<u>Overall</u>

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 7.427 | 27.234 | 0.000 | | | |
| Wilks | 0.119 | 27.234 | 0.000 | | | |

a.

8.2.4 Significant MANOVA differences between the three different levels

Having studied the difference at each of the three levels of auditors, in this section the multivariate analysis was used to examine the differences between the three levels at the same time. Table 8.8 shows the results of the MANOVA test performed on the response from subjects from three levels in the public sector. The table also shows the results of the F-test which was done as a post hoc test performed to explain the results of the MANOVA test. The table shows that there is a significant difference between respondents from the three groups in the way they perceive the first component of the framework. The F-test reveals that this difference was caused by significant perceptual differences between the three groups on all three factors under the component.

Furthermore, the table reveals significant perceptual difference on the operational component between the three groups. And by looking at the results of the post hoc univariate test it seems that the difference was caused by significant differences between the three groups in six out of the seven factors that form the component. The only factor that showed no significant differences between the three groups was the one examining the process of selecting the auditor to carry out the audit task. Also, both multivariate tests reveal a significant difference between the three groups in the way they perceive the organisational
aspects of the internal audit profession. This is due to the three groups having shown significant perceptual differences in all eight factors under the organisational component.

Similarly, both the Hotellings and Wilks Lambda tests reveal a significant difference between the three groups in their perception of the external component. The post hoc F-test shows that the cause of this difference was the three groups having shown significant univariate differences in the perception of two of the three factors that make up the component. Only the factor concerning the environmental responsibilities of internal auditing does not seem to instigate any significant perceptual difference between the three different groups. Moreover, the results of both multivariate tests show that the three groups differ significantly in their overall perception of the conceptual framework. This multivariate difference was due to the three groups having shown significant differences in 19 out of the 21 factors that make up the conceptual framework.

<u>TABLE (8.8)</u> <u>PERCEPTION OF INTERNAL AUDIT</u> <u>PUBLIC SECTOR</u> <u>ACROSS ALL THREE LEVELS</u> <u>MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA</u>

First Component

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| Multivariate | e tests of s | significanc | e | Post l | hoc Univar | iate F-test | |
|--|--|---------------------------------|------------------|--------------------------------|---------------------------------|---|--|
| <u>Test Name</u> | Value | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> | |
| Hotellings | 1.746 | 53.555 | 0.000 | F1 | 90.130 | 0.000 | |
| Wilks | 0.344 | 43.440 | 0.000 | F2 | 44.141 | 0.000 | |
| | | | | F3 | 66.747 | 0.000 | |
| Second Com | ponent | | | | | | |
| Multivariate | e tests of s | ignificanc | e | | | | |
| <u>Test Name</u> | Value | <u> </u> | <u>Sig. of F</u> | | | | |
| Hotellings | 2.958 | 38.027 | 0.000 | | | | |
| Wilks | 0.221 | 29.148 | 0.000 | | | | |
| Post hoc Uni Var. F F4 11.7 F5 1.2 F6 77.3 F7 64.8 | <u>Sig</u> 42 0.0 15 0.2 64 0.0 | <u>. of F</u> 00 99 00 | | <u>Var.</u> F8 F9 F10 | F 37.972 28.905 14.923 | <u>Sig. of F</u> 0.000 0.000 0.000 | |
| <u>Third Component</u> Multivariate tests of significance | | | | | | | |
| <u>Test Name</u> | Value | <u> </u> | <u>Sig. of F</u> | | | | |
| Hotellings | 2.898 | 32.419 | 0.000 | | | | |
| Wilks | 0.225 | 24.902 | 0.000 | | | | |
| Post hoc Uni | variate F | -test | | Var | F | Sig of F | |

| <u>Var.</u> | F | Sig. of F | <u>Var.</u> | _ <u>F</u> | <u>Sig. of F</u> |
|-------------|--------|-----------|-------------|------------|------------------|
| FII | 20.945 | 0.000 | F15 | 3.340 | 0.000 |
| F12 | 13.878 | 0.000 | F16 | 28.933 | 0.000 |
| F13 | 21.483 | 0.000 | F17 | 21.329 | 0.000 |
| F14 | 63.156 | 0.000 | F18 | 65.139 | 0.000 |

| Fourth | <u>Component</u> | |
|--------|------------------|--|
| | | |

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|--|
| Test Name | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 0.486 | 14.919 | 0.000 | | | |
| Wilks | 0.664 | 14.011 | 0.000 | | | |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | Sig. of F |
|-------------|----------|-----------|
| F19 | 9.821 | 0.000 |
| F20 | 37.145 | 0.000 |
| F21 | 1.655 | 0.000 |

<u>Overall</u>

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|--|
| Test Name | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 9.554 | 37.761 | 0.000 | | | |
| Wilks | 0.058 | 25.035 | 0.000 | | | |

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8.3 Private Sector - Perceptual Differences on the Different Elements of the Conceptual Framework

8.3.1 Significant intra-auditor Mann-Whitney and T-test differences between internal auditors and senior internal auditors / internal audit managers

As in the case of the public sector, analyses between the three different groups of internal auditors in the private sector was carried out to determine whether the perception of the internal audit profession as held by respondents in these groups significantly differed from one group to another. The differences, if found, would mean that the perception of the profession varies according to the level of internal auditor. The first two sets of response that had been analysed were those of the two groups of internal auditors and senior internal auditors. The results of the analysis for these two groups are shown in table 8.9. The table reveals that, under both parametric and nonparametric tests, there is great deal of similarity in the pattern of the results obtained. In the case of the Mann-Whitney test there are 11 situations where significant differences were revealed between the perception held by internal auditors and the perception held by senior internal auditors. While under the T-test only 10 elements showed significant differences between the two groups under examination. However, these 10 elements include nine elements that also showed significant differences under the Mann-Whitney test. This confirms the

consistency between the results obtained from both tests. The only one element that showed significance under the T-test but no significant difference under the Mann-Whitney test was the element examining the audit committee. Meanwhile, the two elements that showed significant differences under the Mann-Whitney test but showed no significance under the T-test were those dealing with planning the audit and audit measures. Otherwise, there was consistency on the remaining elements that did not show any significant differences under either test. These elements are: scope of audit work; common concepts; field work; organisational status; staffing, training and development; relationship with auditees; quality assurance; relationship with external auditors (co-operation); and environmental responsibilities.

This pattern of results repeat the pattern revealed in the public sector, and again those statistical differences resulted from more positive perception among auditors from the higher level. This confirms the relationship between the levels of auditors and their perception of the internal audit profession, which leads to the rejection of the null hypothesis. However, it should be mentioned that the small gap in experience between respondents at the first two levels has also meant a degree of similarity between the two levels in their perception of some aspects of internal audit.

8.3.2 Significant intra-auditor Mann-Whitney and T-test differences between internal auditors and chief internal auditors

Table 8.10 provides the results of the analysis for the groups of internal auditors and chief internal auditors. The first thing to notice about the results is the great deal of similarity shown in the results obtained from both the parametric and non-parametric tests. Both tests revealed significant differences in 17 out of the 21 elements under examination but there were slight deviations between the two sets of results. These deviations were in the case of field work that showed significant difference under the Mann-Whitney test but showed no significance under T-test. This was also the case with environmental responsibilities that showed significant difference under the T-test but showed no significance under the Mann-Whitney. This means that there were only three elements that showed no significant differences under both tests. These were the elements regarding: audit measures; audit committee; and relationship with external auditors (co-operation).

The reason behind these results was chief internal auditors having more positive perception than auditors at the entry level. This in turm resulted from chief internal auditors having a great deal of experience supported by organisational stature. Therefore, the null hypothesis proposing no difference in perception among auditors from different levels should not be accepted.

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8.3.3 Significant intra-auditor Mann-Whitney and T-test differences between senior internal auditors / internal audit managers and chief internal auditors

Results of analysis carried out on the final pairings of the research groups in the private sector are shown in table 8.11. Again, the results confirm the degree of consistency between the results obtained through parametric and non-parametric tests. The non-parametric Mann-Whitney test revealed significant differences between auditors in the middle and top levels groups on 14 elements, while in the case of the parametric T-test there were only 13 elements showing significant differences. The elements regarding the scope of audit and field work that showed significant difference under the Mann-Whitney test has showed no significance under the T-test.

Furthermore, there was consistency in the remaining elements which showed no significant differences under both parametric and non-parametric tests. These elements are: selecting the auditor; followup, audit measures; relationship with auditees; audit committee; and relationship with external auditors (co-operation).

Those results further confirm the conclusion drawn from the results of the previous two analyses. All the results seems to suggest that the higher the level of auditors the more favourable perception they hold of internal auditing. In this case all differences revealed resulted from

senior internal auditors having significantly less positive perception than chief internal auditors. This proves that the perception of internal auditing, as held by internal auditors, differs significantly according to the experience and level of auditors, which contradicts what was proposed by the null hypothesis and leaves us with no option but to reject it.

8.3.4 Significant intra-auditor ANOVA differences between the three different levels of internal auditors in the private sector

Having studied the differences between respondents from one of the three levels with that of respondents at each of the other two levels, this section examines the difference across all three levels in the private sector. Table 8.12 shows the results of the ANOVA test performed on the response obtained from the three groups. The table reveals that there are significant differences across the three groups in the perception of 19 out of the 21 factors that form the component. The post hoc Scheffe test reveals that the significance in three factors was caused by significant differences between all three groups. These were the factors regarding: definition and objective of internal auditing; establishing plans, rules and policies; and relationship with external auditors (general). All three factors showed perception that gets significantly higher as the level of auditors gets higher.

Meanwhile, in eight of the factors the significance was caused by significant differences between respondents from the top level and respondents from the other two levels. This was due to the chief internal auditors showing a perception that is more positive than that held by internal auditors and senior internal auditors regarding: the common concepts; selecting the auditee; planning the audit; organisational status; staffing training and developments; relationship with auditees (and the audit report); quality assurance; and environmental responsibilities.

Moreover, in five factors the significance was caused by significant perceptual differences between respondents from the first level and respondents from the other two levels. All five factors were perceived more favourably by senior internal auditors and chief internal auditors than by internal auditors. These factors were: selecting the auditor; reporting findings and recommendations; follow-up; membership of the IIA; and relationship with auditees. The Scheffe test also shows that the significance on two of the factors was solely a result of respondents from first level having less positive perception than that of chief internal auditors. These two factors were dealing with the scope of audit work and field work.

TABLE (8.9)¹ PERCEPTION PRIVATE SECTOR INTERNAL AUDITORS VS SENIOR INTERNAL AUDITORS **T-TEST & MANN-WHITNEY**

| VARIABLE | T-TEST | MANN-WHITNEY |
|---|----------|--------------|
| Definition & Objective of Internal Auditing | -2.80*** | 520.5*** |
| Scope of Audit Work | -1.38 | 674 |
| Common Concepts | -0.70 | 735 |
| Planning the Audit (Selecting the Auditee) | 2.78*** | 526.5*** |
| Planning the Audit (Selecting the Auditor) | -3.86*** | 529*** |
| Planning the Audit (Setting the Time, Objective & Scope, Preliminary Survey, Audit Programme) | 1.77 | 468*** |
| Field Work | 0.41 | 749.5 |
| Reporting Findings & Recommendations | -8.52*** | 129*** |
| Follow up | -7.80*** | 213*** |
| Audit Measures | 1.21 | 668.5 |
| Organisational Status | -1.86* | 647.5 |
| Membership of the IIA | -3.77*** | 576.5*** |
| Staffing, Training & Development | -1.05 | 730 |
| Establishing Plans, Rules & Policies | -9.16*** | 180*** |
| Relationship with Auditees | -3.17*** | 495*** |
| Relationship with Auditees (and the Audit Report) | 1.05 | 672.5 |
| Audit Committee | -1.93* | 632.5* |
| Quality Assurance | 0.67 | 659 |
| Relationship with External Auditors (General) | -2.81*** | 564.5*** |
| Relationship with External Auditors (Co-operation) | -1.77* | 617.5* |
| Environmental Responsibilities | -1.55 | 658.5 |

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<u>' Key:</u> *** Significant @ 99% ** Significant @ 95%

^{*} Significant @ 90%

TABLE (8.10)¹ PERCEPTION PRIVATE SECTOR INTERNAL AUDITORS VS CHIEF INTERNAL AUDITORS **T-TEST & MANN-WHITNEY**

| VARIABLE | T-TEST | MANN-WHITNEY |
|---|-----------|--------------|
| Definition & Objective of Internal Auditing | -9.61*** | 126.5*** |
| Scope of Audit Work | -3.58*** | 333*** |
| Common Concepts | -10.53*** | 18*** |
| Planning the Audit (Selecting the Auditee) | -3.91*** | 329.5*** |
| Planning the Audit (Selecting the Auditor) | -3.45*** | 437*** |
| Planning the Audit (Setting the Time, Objective & Scope, Preliminary Survey, Audit Programme) | -8.26*** | 39.5*** |
| Field Work | -1.71 | 157.5*** |
| Reporting Findings & Recommendations | -4.56*** | 260*** |
| Follow up | 5.41*** | 224.5*** |
| Audit Measures | 0.09 | 571 |
| Organisational Status | -12.27 | 23*** |
| Membership of the IIA | -4.08*** | 317*** |
| Staffing, Training & Development | -3.57*** | 294*** |
| Establishing Plans, Rules & Policies | -11.57*** | 51.5*** |
| Relationship with Auditees | -5.75*** | 231*** |
| Relationship with Auditees (and the Audit Report) | -2.74*** | 300*** |
| Audit Committee | -0.25 | 586.5 |
| Quality Assurance | -3.06*** | 317*** |
| Relationship with External Auditors (General) | -11.95*** | 28*** |
| Relationship with External Auditors (Co-operation) | -0.59 | 594 |
| Environmental Responsibilities | -3.74*** | 308.5*** |

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¹ Key:

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^{***} Significant @ 99% ** Significant @ 95% * Significant @ 90%

TABLE (8.11)¹ **PERCEPTION** PRIVATE SECTOR SENIOR INTERNAL AUDITORS VS CHIEF INTERNAL AUDITORS **T-TEST & MANN-WHITNEY**

| VARIABLE | T-TEST | MANN-WHITNEY |
|---|-----------|--------------|
| Definition & Objective of Internal Auditing | -6.07*** | 112.5*** |
| Scope of Audit Work | -1.95* | 315** |
| Common Concepts | -10.26*** | 18*** |
| Planning the Audit (Selecting the Auditee) | -6.58*** | 132*** |
| Planning the Audit (Selecting the Auditor) | 0.06 | 442.5 |
| Planning the Audit (Setting the Time, Objective & Scope, Preliminary Survey, Audit Programme) | -11.66*** | 19*** |
| Field Work | -1.66 | 103.5*** |
| Reporting Findings & Recommendations | 2.47 | 294.5** |
| Follow up | 0.18 | 414 |
| Audit Measures | -0.71 | 344* |
| Organisational Status | -10.58*** | 29*** |
| Membership of the IIA | -2.26** | 293.5*** |
| Staffing, Training & Development | -2.82*** | 247*** |
| Establishing Plans, Rules & Policies | -5.59*** | 133*** |
| Relationship with Auditees | -1.59 | 358.5 |
| Relationship with Auditees (and the Audit Report) | -3.15*** | 187*** |
| Audit Committee | 0.75 | 423.5 |
| Quality Assurance | -3.51*** | 199*** |
| Relationship with External Auditors (General) | -8.37*** | 72*** |
| Relationship with External Auditors (Co-operation) | 0.90 | 384 |
| Environmental Responsibilities | -3.00*** | 252*** |

¹<u>Kev</u>: *** Significant @ 99% ** Significant @ 95%

TABLE (8.12)PERCEPTIONPRIVATE SECTORALL THREE LEVELSANOVA WITH SCHEFFE

| Factor | F-ratio | F-prob. | . Multiple Range Scheffe Test (sign. level | | | 1.05) | |
|--------|---------|---------|--|-----------|----------|----------------|---|
| | | - | Mean | Level | | Grou | p |
| | | | | i | 1 | 2 | 3 |
| FI | 48.449 | 0.000 | 19.745 | 1 | | | |
| | 101115 | 0.000 | 21.212 | 2 | s | | |
| | | | 26.000 | 3 | s | s | |
| F2 | 6.983 | 0.001 | 12.638 | 1 | <u> </u> | - | |
| | 0.705 | 0.001 | 12.970 | 2 | | | |
| | | | 13.593 | 3 | s | | |
| F3 | 70.562 | 0.000 | 11.809 | 1 | Ť | | 1 |
| | 70.502 | 0.000 | 11.939 | 2 | | | |
| | | | 14.074 | 3 | s | s | |
| F4 | 19.668 | 0.000 | 8.660 | 1 | | ا ا | |
| Г4 | 19.008 | 0.000 | 8.273 | 2 | | | |
| | | | 9.407 | 3 | s | s | |
| F5 | 10 421 | 0.299 | 3.979 | 1 | | 3 | |
| C1 | 10.421 | 0.299 | 4.303 | 2 | s | | |
| | | | 4.303 | 2 | S | | |
| | 55.7(/ | | | | | | |
| F6 | 55.766 | 0.000 | 15.936 | 1 2 | | | |
| | | | 15.394 | | s | s | |
| | | 0.000 | 18.667 | 3 | <u> </u> | 3 | |
| F7 | 4.046 | 0.020 | 19.979 | 1 | | | |
| | | | 20.030 | 2 | | | |
| | | | 21.333 | 3 | S | | • |
| F8 | 32.639 | 0.000 | 9.234 | 1 | | | |
| | | | 12.121 | 2 | S | | |
| | | | 11.370 | 3 | S | S | |
| F9 | 30.797 | 0.000 | 6.596 | 1 | | | |
| | | | 8.606 | 2 | S | | |
| | | | 8.556 | 3 | S | | |
| F10 | 0.553 | 0.557 | 4.532 | 1 | | | |
| | | | 4.394 | 2 | | | |
| | | | 4.519 | 3 | L | | |
| F11 | 122.975 | 0.000 | 20.277 | 1 | | | |
| | | | 20.606 | 2 | | | |
| | | | 23.667 | 3 | S | S | |
| F12 | 12.802 | 0.000 | 3.832 | <u>_1</u> | | | |
| | | | 4.030 | 2 | S | | |
| | | | 4.333 | 3 | S | | |
| F13 | 7.467 | 0.000 | 16.000 | 1 | | | |
| | | | 16.303 | 2 | 1 | | |
| | | | 17.222 | 3 | S | S | |
| F14 | 77.593 | 0.000 | 19.681 | 1 | | | |
| | | | 23.364 | 2 | S | | |
| | | | 29.519 | 3 | S_ | S | |
| F15 | 14.156 | 0.000 | 12.745 | 1 | | | |
| | | | 13.546 | 2 | S | | |
| | | | 14.000 | 3 | S | | |

| Factor | F-ratio | F-prob. | Multiple Rang | e Scheffe Test | (sign. | level | .05) |
|--------|---------|---------|---------------|----------------|--------|-------|----------|
| | | | Mean | Level | | Group | 2 |
| | | | | | 1 | 2 | <u>3</u> |
| F16 | 9.938 | 0.000 | 12.447 | 1 | 1 | | |
| | | | 12.303 | 2 | | | |
| | | | 13.333 | 3 | S | S | |
| F17 | 1.022 | 0.364 | 8.085 | 1 | | | |
| | | | 8.333 | 2 | | | |
| | | | 8.148 | 3 | | | |
| F18 | 8.344 | 0.000 | 16.021 | 1 | | | |
| | | | 15.758 | 2 | | | |
| | | | 17.630 | 3 | S | S | |
| F19 | 85.663 | 0.000 | 16.170 | 1 | | | |
| | | | 16.727 | 2 | S | | |
| | | | 18.963 | 3 | S | S | |
| F20 | 1.410 | 0.249 | 7.489 | 1 | | | |
| | | | 7.848 | 2 | S | | |
| | | | 7.630 | 3 | S | S | |
| F21 | 9.391 | 0.000 | 7.500 | 1 | | | |
| | | | 7.879 | 2 | | | |
| | | | 8.667 | 3 | S | S | |

TABLE (8.12) cont.

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8.4 Private Sector - Perceptual Differences on the Four Components of the Conceptual Framework

8.4.1 Significant MANOVA differences between internal auditors and senior internal auditors / internal audit managers

Having studied the differences between the three groups on the 21 different elements of the conceptual framework, it was imperative to study the differences between the groups on the four components and the overall score of the conceptual framework. Table 8.13 shows the results of the analysis of the response of the first two levels of internal auditors in the private sector, once more revealing two sets of absolutely identical results from both statistical tests. It is apparent that there were significant differences between internal auditors and senior internal auditors in the perception of all four components as well as the overall conceptual framework of internal auditing.

The two multivariate tests reveal a significant perceptual difference between the two groups on the first component dealing with the conceptual aspects of the framework. This difference was due to a significant difference between respondents from the two levels in one of the three factors under the component. This factor was that regarding the definition and objective of internal auditing. And looking at the mean scores for the two groups, it appears that senior internal auditors have a significantly higher perception of the factor than internal

auditors. Thus, it could also be said that senior internal auditors in the public sector perceive the first component of the framework in a more positive way than internal auditors in the same sector.

Moreover, the group of internal auditors in the private sector seem to have a significantly different perception of the operational component from that held by senior internal auditors working in the same sector. The post hoc univariate test reveals that the significant differences were caused by univariate significant differences between the two groups in four out of the seven factors that make up the component. All four factors revealed a higher perception among senior internal auditors than among internal auditors. The three factors that showed no significance were those regarding: planning the audit; field work; and audit measures. However, it could be concluded that senior internal auditors have a more positive perception of the operational component than internal auditors.

Similarly the two multivariate tests reveal a significant perceptual difference between the two levels on the third component which is concerned with the organisational matters of the framework. The post hoc F-test shows that the difference was justified by significant differences in three of the factors making up the component. It is noted that senior internal auditors have a significantly higher perception than that held by internal auditors regarding the factors on: membership of

the IIA; establishing plans, rules and policies; and relationship with auditees. This meant a more positive perception of the organisational component among senior internal auditors rather than internal auditors within the private sector.

Another significant difference was observed between the two levels on the perception of the external component of the framework. This could be noted from the results of both the Hotellings and Wilks Lambda tests as shown in table 8.13. The results of the post hoc univariate test refer the perceptual difference in the fourth component to a significant difference between the two levels in one of three factors within the component. It is apparent from looking at the mean scores and the F-test results that senior internal auditors have a more favourable perception of the factor concerning relationship with external auditors (general) than the perception held by internal auditors. This leads to the conclusion that the external component is perceived more favourably by senior internal auditors than by internal auditors working in the private sector. However, it should be noted that respondents from both levels showed relatively high perception of the external component.

Furthermore, the table reveals a significant difference between the respondents from the two levels in their overall perception of the framework. The significant perceptual differences between the groups

in only nine out of 21 factors that make up the framework. And taking the results on the four components into consideration, it could be said that senior internal auditors in the private sector have a significantly higher perception of the framework than that held by internal auditors working in the same sector. It is to be noted that, generally, both groups seem to have a favourable perception of the conceptual framework.

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<u>TABLE (8.13)</u> <u>PERCEPTION OF INTERNAL AUDIT</u> <u>PRIVATE SECTOR</u> <u>INTERNAL AUDITORS VS SENIOR INTERNAL AUDITORS</u> <u>MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA</u>

First Component

| Multivariate tests of significance | | | | Post hoc Univariate F-test | | | |
|------------------------------------|--------------|----------|------------------|----------------------------|----------|------------------|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> | |
| Hotellings | 0.163 | 4.120 | 0.009 | F1 | 7.857 | 0.006 | |
| Wilks | 0.860 | 4.120 | 0.009 | F2 | 2.190 | 0.143 | |
| | | | | F3 | 0.487 | 0.487 | |

Second Component

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 2.063 | 21.222 | 0.000 | | | |
| Wilks | 0.326 | 21.222 | 0.000 | | | |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | <u>_Sig. of F</u> | <u>Var.</u> | <u>F</u> | Sig. of F |
|-------------|----------|-------------------|-------------|----------|-----------|
| F4 | 6.448 | 0.013 | F8 | 54,348 | 0.000 |
| F5 | 20.010 | 0.000 | F9 | 47.303 | 0.000 |
| F6 | 3.116 | 0.081 | F10 | 1.470 | 0.229 |
| F7 | 0.126 | 0.724 | - | 1.070 | 0.227 |

Third Component

Multivariate tests of significance

| <u>Test Name</u> | <u>Value</u> | <u> </u> | Sig. of F |
|------------------|--------------|----------|-----------|
| Hotellings | 1.686 | 14.961 | 0.000 |
| Wilks | 0.372 | 14.961 | 0.000 |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | F | Sig. of F |
|-------------|----------|------------------|-------------|--------------------|-----------|
| FH | 3.471 | 0.066 | F15 | $\frac{1}{11.392}$ | |
| F12 | 10.243 | 0.002 | F16 | | 0.001 |
| F13 | 1.094 | 0.299 | F17 | 1.094 | 0.299 |
| F14 | 62.542 | 0.000 | - | 3.728 | 0.057 |
| 117 | 02.342 | 0.000 | F18 | 0.447 | 0.506 |

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| Fourth | Component |
|--------|-----------|
| | |

| Multivariate tests of significance | | | | | | |
|------------------------------------|-------|-------|-------|--|--|--|
| Test Name Value F Sig. of | | | | | | |
| Hotellings | 0.186 | 4.721 | 0.004 | | | |
| Wilks | 0.843 | 4.721 | 0.004 | | | |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|-------------|----------|------------------|
| F19 | 8.824 | 0.004 |
| F20 | 2.956 | 0.090 |
| F21 | 2.404 | 0.185 |

<u>Overall</u>

| Multivariate tests of significance | | | | | | |
|------------------------------------|-------|--------|-------|--|--|--|
| Test Name Value F Sig. of | | | | | | |
| Hotellings | 6.873 | 18.982 | 0.000 | | | |
| Wilks | 0.127 | 18.982 | 0.000 | | | |

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8.4.2 Significant MANOVA differences between internal auditors and chief internal auditors

In this section the response of the first and top levels of internal auditors working in the private sector was analysed to examine whether the two levels differed in the way they perceived the four components of the framework as well as the framework in general. Table 8.14 shows the results of the two multivariate tests performed on the response obtained from the two groups. Both multivariate tests reveal a significant difference between the two groups in the perception of the first component. This significant difference could be referred to significant differences in all the three factors making up the component, and in all three cases chief internal auditors. Hence, it could be said that chief internal auditors have a more positive perception of the first component than internal auditors.

The table also reveals that internal auditors in the private sector have a perception of the operational component that differs significantly from the perception held by chief internal auditors. In that respect chief internal auditors seem to have a more favourable perception of the operational component than internal auditors. This is true since the significant difference was caused by significant differences between the two groups in six out of seven factors that make up the component. And in all six cases chief internal auditors have a higher perception than

internal auditors. The only factor that showed no significant difference was regarding audit measures. Still, it could be said that chief internal auditors in the private sector have a more positive perception of the operational component than that of internal auditors in the same sector.

The results from two multivariate tests also show a significant perceptual difference between the two levels on the third component, that examine the organisational matters of the conceptual framework for internal auditing. This difference was a result of a significant difference in seven out of the eight factors under the component, as can be seen from the results of the post hoc univariate F-test. The F-test reveals that the only factor that showed no significance was that concerned with the audit committee. And by looking at the mean scores for the two groups, it is apparent that chief internal auditors have a higher perception of all seven factors than the perception held by internal auditors. Thus, it could be said that chief internal auditors have a perception of the organisational component that is more compatible with the conceptual framework than the perception held by internal auditors.

The perception of the fourth component has also differed significantly between the two groups, as can be seen from the results of both multivariate tests shown in table 8.14. The table also shows that this significant multivariate difference was caused by significant differences

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in two out of the three factors under the component. These two factors were related to the relationship with external auditors (general) and the environmental responsibilities of internal audit, and on both factors chief internal auditors have a significantly higher mean scores than internal auditors. This means that chief internal auditors have a more positive perception of the two factors than internal auditors. The same conclusion could be made about the perception of the external component in general.

Finally, both the Hotellings and Wilks Lambda tests reveal a significant difference in the overall perception of the framework between the two levels. This could be justified by univariate significant differences in 18 out of the 21 factors that form the framework. Also, since in all significant cases chief internal auditors have a higher perception than internal auditors, it could be concluded that in general chief internal auditors have a more favourable perception of the conceptual framework than internal auditors in the private sector. However, it should be noted that both groups showed positive perception of their profession.

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TABLE (8.14) PERCEPTION OF INTERNAL AUDIT PUBLIC SECTOR INTERNAL AUDITORS VS CHIEF INTERNAL AUDITORS MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA

| <u>First Compo</u> Multivariate | | anificance | | Post | noc Univari | ate F-test | |
|------------------------------------|-----------------------|---------------|------------------|-------------------------|-------------|------------------|--|
| Test Name | Value | | Sig. of F | Var. <u>F</u> Sig. of F | | | |
| Hotellings | <u>value</u> 2.241 | 51.291 | 0.000 | <u>var.</u> Fl | 92.387 | 0.000 | |
| - | 0.309 | 51.291 | 0.000 | F1 F2 | 16.209 | 0.000 | |
| Wilks | 0.309 | 51.291 | 0.000 | г2 F3 | 110.209 | 0.000 | |
| | | | | ГJ | 110.955 | 0.000 | |
| Second Com | | | | | | | |
| Multivariate | | | | | | | |
| <u>Test Name</u> | Value | | Sig. of F | | | | |
| Hotellings | 2.596 | 24.479 | 0.000 | | | | |
| Wilks | 0.278 | 24.479 | 0.000 | | | | |
| Post hoc Uni | variate F- | test | | | | | |
| <u>Var.</u> <u>F</u> | Sig. | | | <u>Var.</u> | F | <u>Sig. of F</u> | |
| F4 15.3 | | | | | 20.815 | 0.000 | |
| F5 18.84 | | | | F9 | 29.276 | 0.000 | |
| F6 68.2 | 85 0.00 | | | F10 | 0.007 | 0.932 | |
| F7 4.9 | | | | | | | |
| Third Comp | | | | | | | |
| Multivariate | tests of si | ignificance | : | | | | |
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | | |
| Hotellings | 5.322 | 43.245 | 0.000 | | | | |
| Wilks | 0.158 | 43.245 | 0.000 | | | | |
| Post hoc Uni | ivariate F- | test | | | | | |
| Var. F | Sig | <u>. of F</u> | | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> | |
| F11 193.3 | | | | F15 | 33.013 | 0.000 | |
| F12 16.6 | 24 0.0 | 00 | | F16 | 11.334 | 0.001 | |
| F13 12.7. | | 01 | | F17 | 0.089 | 0.766 | |
| F14 100.3 | | 00 | | F18 | 10.817 | 0.002 | |
| | | | | | | | |
| <u>Fourth Com</u> Multivariate | | ignificance | a | | | | |
| <u>Test Name</u> | Valu <u>e</u> | F_ | Sig. of F | | | | |
| Hotellings | 3.012 | 70.291 | 0.000 | | | | |
| Wilks | 0.249 | 70.291 | 0.000 | | | | |
| VV IIKS | 0.249 | 70.291 | 0.000 | | | | |
| Post hos Uni | ivariata F | tost | | | | | |

Post hoc Univariate F-test

| <u>. of F</u> |
|---------------|
| 00 |
| 58 |
| 00 |
| |

<u>Overall</u>

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Multivariate tests of significance

| <u>lest Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> |
|------------------|--------------|----------|------------------|
| Hotellings | 18.289 | 45.288 | |
| Wilks | 0.052 | 45.288 | 0.000 |

8.4.3 Significant MANOVA differences between senior internal auditors and chief internal auditors

Table 8.15 shows the results of the multivariate analysis whuch focused on response from the groups of senior internal auditors and chief internal auditors. The two groups under examination here represent the middle and top levels of internal auditors in the private sector. The first thing to be noted from the results shown in the table is that there are significant perceptual differences between the two groups on all four components as well as the overall perception of the conceptual framework.

The two groups showed a significantly different perception of the first component that deals with the conceptual aspects of the framework. The difference was due to significant perceptual differences between respondents from the two levels in two out of three factors examining different facets of the component. Only the factor regarding the scope of audit work showed no significance. Meanwhile, on the two factors that revealed significance, chief internal auditors seem to record a significantly higher perception than senior internal auditors. Hence, a conclusion could be made that chief internal auditors have a more positive perception of the conceptual component than senior internal auditors.

Likewise, there was a significant difference between the two groups in their perception of the operational component. The post hoc F-test reveals that the cause of this difference is the two groups having a significantly different perception of three of the factors that form the component. Again, this significance was a result of the chief internal auditors having significantly higher perception of the factors than the perception held by senior internal auditors. These three factors were: selecting the auditor; planning the audit; and reporting findings and recommendations. Therefore, it could be said that chief internal auditors have a perception of the operational component that is more compatible with the conceptual framework than the perception held by senior internal auditors in the private sector.

Furthermore, senior internal auditors working in the private sector appear to perceive the organisational component in a significantly different way from that of chief internal auditors in the same sector. The results of the post hoc univariate test reveal that this difference was caused by significant perceptual differences between the two groups in six out of the eight factors within the component. Only the factors regarding relationship with auditees and audit committee showed no significant perceptual difference between the two groups. Meanwhile, on all six factors showing significance, chief internal auditors have a more positive perception than that held by senior internal auditors. Thus, it could be concluded that in the private sector chief internal

auditors seems to have a more favourable perception of the organisational component than the perception held by senior internal auditors.

Similarly, the results of the multivariate analysis reveal a significant perceptual difference between the two groups on the external component. Table 8.15 indicates that this multivariate difference was a result of the two groups having shown significant univariate differences in two of three factors that form the component. It appears that chief internal auditors have a more favourable perception of the factors concerning relationship with external auditors (general) and the environmental responsibilities of internal audit, than the perception held by senior internal auditors. This leads us to conclude that chief internal auditors have a perception of the external component that is more compatible with the conceptual framework than that of senior internal auditors.

Moreover, the results shown in the table also reveal that respondents from the two levels tend to perceive the conceptual framework in a significantly different manner. This is understandable since the two groups showed significant perceptual differences in 13 out of the 21 factors that make up the component. Besides, since it was found that chief internal auditors have a higher perception of these factors than senior internal auditors, it could be concluded that chief internal

auditors in the private sector have a more favourable overall perception of the conceptual framework than senior internal auditors working in the same sector. However, it should be noted that respondents from both levels showed relatively high perception of the different factors of the conceptual framework.

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TABLE (8.15) PERCEPTION OF INTERNAL AUDIT PRIVATE SECTOR SENIOR INTERNAL AUDITORS VS CHIEF INTERNAL AUDITORS MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA

First Component

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| Multivariat | e tests of a | significan | ce | Post 1 | hoc Univar | iate F-test |
|------------------|--------------|------------|------------------|-------------|------------|-------------|
| <u>Test Name</u> | Value | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | Sig. of F |
| Hotellings | 2.339 | 43.664 | 0.000 | F1 | 36.870 | 0.000 |
| Wilks | 0.299 | 43.664 | 0.000 | F2 | 3.820 | 0.055 |
| | | | | F3 | 109.845 | 0.000 |

Second Component

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------------|------------|------------------|--|--|--|
| <u>Test Name</u> | <u>Value</u> | _ <u>F</u> | <u>Sig. of F</u> | | | |
| Hotellings | 3.752 | 27.875 | 0.000 | | | |
| Wilks | 0.210 | 27.875 | 0.000 | | | |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | <u>_Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|-------------|----------|-------------------|-------------|----------|------------------|
| F4 | 48.080 | 0.000 | F8 | 6.955 | 0.011 |
| F5 | 0.003 | 0.956 | F9 | 0.036 | 0.850 |
| F6 | 135.906 | 0.000 | F10 | 0.502 | 0.481 |
| F7 | 3.378 | 0.071 | | | |

Third Component

Multivariate tests of significance

| Test Name | <u>Value</u> | _ <u>F</u> | <u>Sig. of F</u> |
|------------|--------------|------------|------------------|
| Hotellings | 3.441 | 21.937 | 0.000 |
| Wilks | 0.255 | 21.937 | 0.000 |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | <u>Sig. of F</u> | Var. | <u>F</u> | Sig. of F |
|-------------|----------|------------------|------|----------|-----------|
| FH | 130.385 | 0.000 | F15 | 2.399 | 0.127 |
| F12 | 6.016 | 0.016 | F16 | 11.578 | 0.001 |
| F13 | 7.941 | 0.007 | F17 | 0.660 | 0.420 |
| F14 | 34.795 | 0.000 | F18 | 13.218 | 0.001 |
| | | | | | |

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Fourth Component

| Multivariate tests of significance | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|
| Test Name | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | |
| Hotellings | 1.893 | 35.334 | 0.000 | | |
| Wilks | 0.346 | 35.334 | 0.000 | | |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|-------------|----------|------------------|
| F19 | 69.991 | 0.000 |
| F20 | 0.850 | 0.360 |
| F21 | 10.379 | 0.002 |

<u>Overall</u>

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------|----------|------------------|--|--|--|
| Test Name | Value | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 13.334 | 24.128 | 0.000 | | | |
| Wilks | 0.070 | 24.128 | 0.000 | | | |

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8.4.4 Significant MANOVA differences between the three different levels

In this section the multivariate tests was performed on the response of the three groups in the private sector to examine the perceptual differences on the four components as well as the overall perception. The results of the two MANOVA tests shown in table 8.16 reveal significant differences between the three groups in their perception of the four main components and the overall perception of the conceptual framework of internal auditing. The difference revealed in the perception of the first component seems to be caused by significant perceptual differences in all three factors that examine different aspects of the component.

Similarly, both the Hotellings and Wilks Lambda test revealed a significant difference between the three groups in the perception of the component examining the operational aspects of internal auditing. The cause of the difference was revealed by results of the post hoc test as the three groups have significant perceptual differences in six out of the seven factors that make up the component. The only factor that showed no significant differences was that concerning audit measures.

The same pattern of results was obtained in the case of the organisational component. Here the multivariate significant perceptual difference shown between the three groups seems to be due to the three having significant difference in the way they perceive all but one of the eight factors forming the component.

Moreover, both multivariate tests reveal significant differences between the three groups in their perception of the external aspects of internal audit. The F-test reveals that the reason for the multivariate difference was the existence of significant differences between respondents from the three levels in two of the three factors under the external component. The Hotellings and Wilks Lambda tests also revealed significant differences between the three levels in their overall perception of the conceptual framework. This difference was due to univariate significant differences in 18 of the 21 factors that form the conceptual framework.

TABLE (8.16) PERCEPTION OF INTERNAL AUDIT PRIVATE SECTOR **ACROSS ALL THREE LEVELS** MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA

First Component

| <u>rirst Compo</u> | | | | | | |
|--------------------|----------------|----------------|------------------|-------------|-------------|------------------|
| Multivariate | | significanc | e | Post | hoc Univari | ate F-test |
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
| Hotellings | 1.965 | 33.079 | 0.000 | F1 | 48.449 | 0.000 |
| Wilks | 0.328 | 25.333 | 0.000 | F2 | 6.983 | 0.001 |
| | | | | F3 | 70.562 | 0.000 |
| Second Com | ponent | | | | | |
| Multivariate | tests of s | ignificanc | е | | | |
| <u>Test Name</u> | <u>Value</u> | _ <u>F</u> | <u>Sig. of F</u> | | | |
| Hotellings | 3.418 | 23.682 | 0.000 | | | |
| Wilks | 0.141 | 23.327 | 0.000 | | | |
| | | | | | | |
| Post hoc Uni | variate F | -test | | | | |
| Var. F | Sig | . of F | | <u>Var.</u> | F | Sig. of F |
| F4 19.60 | | | | F8 | 32.637 | 0.000 |
| F5 10.42 | 21 0 .0 | 00 | | F9 | 30.796 | 0.000 |
| F6 54.70 | 66 0.0 | 00 | | F10 | 0.553 | 0.517 |
| F7 4.04 | 46 0.0 | 20 | | | | |
| | | | | | | |
| Third Comp | onent | | | | | |
| Multivariate | | ignificanc | e | | | |
| Test Name | Value | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 4.868 | 29.209 | 0.000 | | | |
| Wilks | 0.125 | 22.370 | 0.000 | | | |
| | | | | | | • |
| Post hoc Uni | variate F | -test | | | | |
| Var. F | Si | <u>g. of F</u> | | <u>Var.</u> | F | <u>Sig. of F</u> |
| FII 122.97 | | 000 | | F15 | 14.156 | 0.000 |
| F12 12.80 | 0.0 | 000 | | F16 | 9.938 | 0.000 |
| F13 7.40 | 57 0.(| 001 | | F17 | 1.022 | 0.364 |
| F14 77.59 | 93 0.0 | 000 | | F18 | 8.344 | 0.000 |
| | | | | | | |

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Fourth Component

| Multivariate tests of significance | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | |
| Hotellings | 2.113 | 35.570 | 0.000 | | |
| Wilks | 0.316 | 26.525 | 0.000 | | |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | Sig. of F |
|-------------|----------|-----------|
| F19 | 85.663 | 0.000 |
| F20 | 1.410 | 0.249 |
| F21 | 9.391 | 0.000 |

<u>Overall</u>

Multivariate tests of significance

| <u>Test Name</u> | <u>Value</u> | <u> </u> | Sig. of F |
|------------------|--------------|----------|-----------|
| Hotellings | 16.228 | 32.070 | 0.000 |
| Wilks | 0.021 | 23.684 | 0.000 |

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8.5 All respondents - Perceptual Differences on the Different Elements of the Conceptual Framework

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8.5.1 Significant intra-auditor Mann-Whitney and T-test differences between internal auditors and senior internal auditors / internal audit managers

In this section the response of all internal auditors from both the public and private sectors was analysed against the response of all senior internal auditors / internal audit managers. This analysis was again done using both the parametric T-test and the non-parametric Mann-Whitney test. The results of the analysis are shown in table 8.17. The table reveals an average number of significant differences between the two groups of auditors in the way they perceive the internal audit profession. There were 10 significant differences between the two groups under the Mann-Whitney test, while under T-test there were 12 elements that revealed significant difference between the two levels of internal auditors. These elements included the 10 elements that also showed significance under Mann-Whitney test. The two elements that shown no significance under the Mann-Whitney test but revealed significant differences under T-test were those dealing with planning the audit and membership of the IIA. The remaining nine elements of the conceptual framework did not reveal any significant differences between subjects in the two groups.

8.5.2 Significant intra-auditor Mann-Whitney and T-test differences between internal auditors and chief internal auditors

The results shown in table 8.18 reveal that under the non-parametric Mann-Whitney test there were significant differences between internal auditors and chief internal auditors in the perception of all elements of the conceptual framework for internal auditing. However, in the case of the T-test an almost identical result were obtained but in this case there was a single element that did not reveal any significant difference between the two groups. This element was regarding the process of selecting the auditor to carry out the audit task.

8.5.3 Significant intra-auditor Mann-Whitney and T-test differences between senior internal auditors / internal audit managers and chief internal auditors

As in the previous situation, the analysis of the response of the senior internal auditors with that of chief internal auditors reveals many significant differences between the two groups in the way they perceive the conceptual framework for internal auditing. As can be seen from table 8.19, there are 19 out of 21 elements showing significant differences under the Mann-Whitney test and the 20 elements with significant differences under the T-test. It is to be noted that all 19 elements that revealed significance under the Mann-Whitney test also showed significant differences between the two groups under the T-test, with element concerned with reporting findings and recommendations, that showed no significance under the Mann-Whitney test showing significance with the T-test. Only one element revealed no significant difference under both tests, this being the element regarding the process of selecting the auditor.

8.5.4 Significant intra-auditor ANOVA differences between the three different levels of internal auditors for all respondents

Table 8.20 shows the results of the ANOVA analysis of the response obtained from all respondents at the three levels. The analysis was carried out to attest the difference in perception across the three levels. The table reveals significant perceptual differences across the three levels in 20 out of 21 factors. The only factor showing no significance was that concerning the process of selecting the auditor to carry out the audit task. The post hoc Scheffe test reveals that in ten of these factors the significance was caused by significant differences between all three groups, and in nine out of the ten factors the perception seems to get significantly higher as the level of auditors gets higher. These factors were: definition & objective of internal audit, field work; reporting findings and recommendations; follow-up; organisational status; establishing plans, rules and policies; relationship with auditees (and the audit report); and relationship with external auditors (co-operation). In the case of the factor regarding selecting the auditees, internal auditors seem to have more positive perception than

that of senior internal auditors, and both levels have a less favourable perception than that held by chief internal auditors.

Furthermore, the results of the Scheffe test show the significance on 10 of the factors was a result of respondents from the top level showing more favourable perception than that held by respondents from the two other levels. These were the factors concerning: the scope of audit work; planning the audit; audit measures; membership of the IIA; staffing, training and development; relationship with auditees; audit committee; quality assurance; relationship with external auditors; and the environmental responsibilities of internal audit.

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TABLE (8.17)¹ PERCEPTION ALL RESPONDENTS INTERNAL AUDITORS VS SENIOR INTERNAL AUDITORS T-TEST & MANN-WHITNEY

| VARIABLE | T-TEST | MANN-WHITNEY |
|---|----------|--------------|
| Definition & Objective of Internal Auditing | -8.04*** | 3044.5*** |
| Scope of Audit Work | -1.21 | 6380 |
| Common Concepts | -6.04*** | 4498.5*** |
| Planning the Audit (Selecting the Auditee) | 2.84*** | 5972** |
| Planning the Audit (Selecting the Auditor) | 0.67 | 6453 |
| Planning the Audit (Setting the Time, Objective & Scope, Preliminary Survey, Audit Programme) | -2.21** | 6326.5 |
| Field Work | -7.37*** | 3596.5*** |
| Reporting Findings & Recommendations | -8.74*** | 2897.5*** |
| Follow up | -6.50*** | 3843.5*** |
| Audit Measures | 0.06 | 6167 |
| Organisational Status | -4.81*** | 4559.5*** |
| Membership of the IIA | -2.02** | 6268* |
| Staffing, Training & Development | -1.15 | 6267.5 |
| Establishing Plans, Rules & Policies | -7.16*** | 3798.5*** |
| Relationship with Auditees | 0.27 | 6726 |
| Relationship with Auditees (and the Audit Report) | -2.38** | 5836.5** |
| Audit Committee | 0.91 | 6786 |
| Quality Assurance | -0.39 | 6634.5 |
| Relationship with External Auditors (General) | -0.48 | 6598 |
| Relationship with External Auditors (Co-operation) | -4.13*** | 4827.5*** |
| Environmental Responsibilities | 0.04 | 6320 |

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¹ Key: *** Significant @ 99%

^{**} Significant @ 95% * Significant @ 90%

TABLE (8.18)1 PERCEPTION ALL RESPONDENTS INTERNAL AUDITORS VS CHIEF INTERNAL AUDITORS T-TEST & MANN-WHITNEY

| VARIABLE | T-TEST | MANN-WHITNEY |
|--|-----------|--------------|
| Definition & Objective of Internal Auditing | -14.42*** | 454.5*** |
| Scope of Audit Work | -9.44*** | 1182*** |
| Common Concepts | -15.89*** | 333*** |
| Planning the Audit (Selecting the Auditee) | -5.34*** | 2111.5*** |
| Planning the Audit (Selecting the Auditor) | -0.31 | 3364.5** |
| Planning the Audit (Setting the Time, Objective & | -15.27*** | 231 |
| Scope, Preliminary Survey, Audit Programme) | | |
| Field Work | -8.54*** | 819.5*** |
| Reporting Findings & Recommendations | -9.01*** | 1403*** |
| Follow up | -9.37*** | 1236*** |
| Audit Measures | -5.35*** | 2141*** |
| Organisational Status | -7.05*** | 1616*** |
| Membership of the IIA | -5.72*** | 1941*** |
| Staffing, Training & Development | -7.80*** | 1505*** |
| Establishing Plans, Rules & Policies | -14.06*** | 517.5*** |
| Relationship with Auditees | -3.46*** | 2385.5*** |
| Relationship with Auditees (and the Audit Report) | -7.15*** | 1745.5*** |
| Audit Committee | -5.00*** | 2344*** |
| Quality Assurance | -7.97*** | 1173.5*** |
| Relationship with External Auditors (General) | -6.44*** | 1642*** |
| Relationship with External Auditors (Co-operation) | -6.69*** | 1876.5*** |
| Environmental Responsibilities | -2.89*** | 2661*** |

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¹ Key: *** Significant @ 99% ** Significant @ 95%

^{*} Significant @ 90%
TABLE (8.19)1 PERCEPTION ALL RESPONDENTS SENIOR INTERNAL AUDITORS VS CHIEF INTERNAL AUDITORS **T-TEST & MANN-WHITNEY**

| VARIABLE | T-TEST | MANN-WHITNEY |
|---|-----------|--------------|
| Definition & Objective of Internal Auditing | -9.20*** | 685.5*** |
| Scope of Audit Work | -7.42*** | 1120*** |
| Common Concepts | -11.57*** | 604*** |
| Planning the Audit (Selecting the Auditee) | -5.96*** | 1366.5*** |
| Planning the Audit (Selecting the Auditor) | -0.72 | 2729.5 |
| Planning the Audit (Setting the Time, Objective & Scope, Preliminary Survey, Audit Programme) | -12.95*** | 439.5*** |
| Field Work | -4.05*** | 998*** |
| Reporting Findings & Recommendations | -2.10** | 2463* |
| Follow up | -3.99*** | 1788*** |
| Audit Measures | -3.65*** | 1974*** |
| Organisational Status | -3.43*** | 1520.5*** |
| Membership of the IIA | -4.37*** | 1604*** |
| Staffing, Training & Development | -6.26*** | 1434.5*** |
| Establishing Plans, Rules & Policies | -8.51*** | 899*** |
| Relationship with Auditees | -3.13*** | 2045*** |
| Relationship with Auditees (and the Audit Report) | -5.56*** | 1520.5*** |
| Audit Committee | -4.82*** | 1712.5*** |
| Quality Assurance | -7.70*** | 959.5*** |
| Relationship with External Auditors (General) | -5.98*** | 1323*** |
| Relationship with External Auditors (Co-operation) | -3.25*** | 2031.5*** |
| Environmental Responsibilities | -2.59** | 2072.5*** |

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<u>¹Key</u>: *** Significant @ 99%

^{**} Significant @ 95%

^{*} Significant @ 90%

TABLE (8.20)PERCEPTIONALL RESPONDENTSALL THREE LEVELSANOVA WITH SCHEFFE

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| Factor | <u>F-ratio</u> | <u>F-prob</u> . | Multiple Ran | <u>ge Scheffe Te</u> | st (sigi | 1. leve | el .05) |
|----------|----------------|-----------------|--------------|----------------------|----------|----------|----------|
| | | | Mean | Level | | Grou | ıp |
| | | | | | 1 | 2 | 3 |
| F1 | 123.963 | 0.000 | 19.877 | 1 | | 1 | |
| | | | 22.800 | 2 | S | | |
| | | | 26.559 | 3 | s | S | |
| F2 | 43.740 | 0.000 | 11.906 | 1 | | | |
| | | | 12.100 | 2 | | | |
| | | | 13.627 | 3 | s | s | |
| F3 | 111.145 | 0.000 | 11.268 | 1 | <u> </u> | <u> </u> | + |
| | | 0.000 | 12.210 | 2 | s | | 1 |
| | | | 14.068 | 3 | s | s | |
| F4 | 26.134 | 0.000 | 8.203 | 1 | | | <u> </u> |
| | 20.134 | 0.000 | 7.770 | 2 | s | | |
| } | | | 9.033 | 3 | s | s | |
| F5 | 0.423 | 0.655 | 3.775 | | | | \vdash |
| FJ | 0.423 | 0.055 | 3.680 | 2 | | | |
| | | | 1 | 2 3 | | | |
| <u>Γ</u> | 110 474 | | 3.831 | | | <u> </u> | 1 |
| F6 | 118.474 | 0.000 | 15.580 | | | | |
| | | | 16.000 | 2 | | ~ | |
| | | | 18.848 | 3 | S | S | |
| F7 | 52.642 | 0.000 | 17.804 | 1 | | | |
| | | | 20.020 | 2 | S | - | |
| | | | 22.017 | 3 | S | S | |
| F8 | 59.330 | 0.000 | 8.887 | 1 | | | |
| | | | 10.790 | 2 | S | _ | |
| | | | 11.373 | 3 | S | S | |
| F9 | 49.552 | 0.000 | 6.899 | 1 | | | |
| | | | 7.980 | 2 | S | | |
| | | | 8.780 | 3 | S | S | |
| F10 | 10.346 | 0.000 | 4.275 | 1 | 1 (| | |
| | | | 4.270 | 2 | | | |
| | | | _ 4.712 | 3 | S | S | |
| FH | 30.775 | 0.000 | 17.073 | 1 | | | |
| | | | 18.870 | 2 | S | | |
| | | | 20.881 | .3 | S | S | |
| F12 | 20.771 | 0.000 | 3.811 | 1 | | | |
| | | | 3.970 | 2 | | | |
| | | | 4.458 | 3 | s | S | |
| F13 | 28.825 | 0.000 | 15.159 | 1 | | | |
| | | | 15.390 | 2 | | | 1 |
| | | | 16.881 | 3 | s | s | [|
| F14 | 84.732 | 0.000 | 23.681 | <u>I</u> | - | | |
| | | | 27.120 | 2 | s | | |
| | | | 31.034 | 3 | S | s | |
| F15 | 7.401 | 0.000 | 11.573 | 1 | | - | |
| | | | 11.500 | 2 | | | |
| | | | 12.661 | 3 | s | s | |

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| Factor | <u>F-ratio</u> | F-prob. | Multiple Range Scheffe Test (sign. level .0: | | | el .05) | |
|--------|----------------|---------|--|-------|---|---------|---|
| . | | | Mean | Level | | Grou | р |
| | | | | | 1 | 2 | 3 |
| F16 | 27.602 | 0.000 | 10.435 | 1 | 1 | | |
| | | | 11.020 | 2 | S | | |
| | | | 12.559 | 3 | S | S | |
| F17 | 15.445 | 0.000 | 7.652 | 1 | | 1 | |
| | | | 7.490 | 2 | | 1 | |
| | | | 8.610 | 3 | S | S | |
| F18 | 46.585 | 0.000 | 16.217 | 1 | | | |
| | | | 16.290 | 2 | | [| |
| | | | 18.407 | 3 | S | S | |
| F19 | 28.144 | 0.000 | 14.478 | 1 | | | |
| | | | 14.620 | 2 | | | |
| | | | 17.102 | 3 | S | S | |
| F20 | 24.971 | 0.000 | 5.768 | 1 | | | |
| | | | 6.660 | 2 | S | | |
| | | | 7.492 | 3 | S | S | |
| F21 | 7.199 | 0.000 | 7.775 | 1 | | T | |
| | | | 7.770 | 2 | | | |
| | | | 8.441 | 3 | S | S | |

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8.6 All respondents - Perceptual Differences on the Four Components of the Conceptual Framework

8.6.1 Significant MANOVA differences between internal auditors and senior internal auditors / internal audit managers

Having studied the differences between the levels of internal auditors in the way they perceive the different elements of the conceptual framework, it was deemed necessary to perform multivariate analysis on the data to test the perceptual differences between respondents from the three levels on the four components and their overall perception of the framework. Table 8.21 shows the result analysis between all respondents at the first level and all respondents from the middle level of internal auditors. The results of the analysis shown in the table reveal a significant difference between the two groups of internal auditors in the way they perceive the first component of the framework. Also, the results of the F-test shown in the table explain that the difference was caused by the two groups having a significantly different perception of two of the three factors within the component. The only factor showing no significance was that dealing with the scope of internal auditing. It appears that senior internal auditors have a more positive perception than internal auditors on the factors regarding the definition and objective of internal auditing, and the common concepts of internal auditing. Thus, it could be said that respondents from the

middle level of internal auditors perceive the first component in a more positive manner than respondents from the first level.

It would also appear from the results shown in the table that the two groups of internal auditors perceive the operational component in a significantly different manner. The cause of this multivariate difference is highlighted in the results of the post hoc F-test. The difference seems to be caused by significant perceptual differences between the two groups in five out of the seven factors making up the component, with only the factors regarding selecting the auditor and audit measures showing no significant difference between the two groups. On the five factors, senior internal auditors seem to have a more favourable perception than internal auditors. This leads to the conclusion that senior internal auditors perceive the operational matters in a manner that is more compatible with the framework than that of internal auditors.

Similarly the two groups show a significant difference in the way they perceive the organisational component, as can be seen from the results of both multivariate tests. The post hoc univariate test shows that this difference was caused by significant differences in three of the factors that make up the component. It seems that senior internal auditors have a higher perception than internal auditors of the factors examining: organisational status; establishing plans, rules and policies;

and relationship with auditees (and the audit report). Hence, it is fair to say that senior internal auditors have a more positive perception of the organisational component than internal auditors.

Furthermore, the results of the multivariate analysis reveal a significant difference between respondents from the two levels in their perception of the external component. This difference seems to be caused by a significant perceptual difference between the two groups in one of the three factors under the component, as revealed by the results of the F-test. It appears that senior internal auditors have a more positive perception of the relationship with external auditors (co-operation) than internal auditors. The same conclusion could be made about the perception of the external component in general.

Moreover, table 8.21 shows that the two levels of internal auditors differ significantly in their overall perception of the conceptual framework, this difference was found under both the Hotellings and Wilks Lambda tests. This difference is a natural result of the two groups having shown significant perceptual differences in 12 of the factors that form the framework. And since in all of these factors senior internal auditors have a higher perception than internal auditors, it could be concluded that respondents at the middle level of internal auditors have a more favourable perception of the conceptual framework than respondents from the first level of internal auditors.

<u>TABLE (8.21)</u> <u>PERCEPTION OF INTERNAL AUDIT</u> <u>ALL RESPONDENTS</u> <u>INTERNAL AUDITORS VS CHIEF INTERNAL AUDITORS</u> <u>MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA</u>

First Component

| Multivariate tests of significance | | | Post h | oc Univari | ate F-test | |
|------------------------------------|--------------|----------|------------------|-------------|------------|-----------|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u>F</u> | Sig. of F |
| Hotellings | 0.341 | 26.578 | 0.000 | F 1 | 64.731 | 0.000 |
| Wilks | 0.746 | 26.578 | 0.000 | F2 | 1.455 | 0.229 |
| | | | | F3 | 32.488 | 0.000 |

Second Component

| Multivariate tests of significance | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | |
| Hotellings | 0.881 | 28.936 | 0.000 | | |
| Wilks | 0.532 | 28.936 | 0.000 | | |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|-------------|----------|------------------|-------------|----------|------------------|
| F4 | 9.713 | 0.002 | F8 | 76.412 | 0.000 |
| F5 | 0.528 | 0.468 | F9 | 40.564 | 0.000 |
| F6 | 4.877 | 0.028 | F10 | 0.004 | 0.951 |
| F7 | 45.584 | 0.000 | | | |

Third Component

| Multivariate tests of significance | | | | | |
|------------------------------------|--------------|-------------|------------------|--|--|
| <u>Test Name</u> | <u>Value</u> | _ <u>F_</u> | <u>Sig. of F</u> | | |
| Hotellings | 0.525 | 15.041 | 0.000 | | |
| Wilks | 0.655 | 15.041 | 0.000 | | |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|-------------|----------|------------------|-------------|----------|------------------|
| F11 | 21.604 | 0.000 | F15 | 0.079 | 0.779 |
| F12 | 3.815 | 0.052 | F16 | 5.647 | 0.018 |
| F13 | 1.327 | 0.251 | F17 | 0.913 | 0.340 |
| F14 | 44.622 | 0.000 | F18 | 0.149 | 0.700 |

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Fourth Component

Multivariate tests of significance

| <u>Test Name</u> | <u>Value</u> | F | <u>Sig. of F</u> |
|------------------|--------------|-------|------------------|
| Hotellings | 0.082 | 6.389 | 0.000 |
| Wilks | 0.924 | 6.389 | 0.000 |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | Sig. of F |
|-------------|----------|-----------|
| F19 | 0.234 | 0.629 |
| F20 | 17.034 | 0.000 |
| F21 | 0.001 | 0.969 |

<u>Overall</u>

| Multivariate tests of significance | | | | | |
|------------------------------------|--------------|-------------|------------------|--|--|
| <u>Test Name</u> | <u>Value</u> | _ <u>F_</u> | <u>Sig. of F</u> | | |
| Hotellings | 2.662 | 27.379 | 0.000 | | |
| Wilks | 0.273 | 27.379 | 0.000 | | |

8.6.2 Significant MANOVA differences between internal auditors and chief internal auditors

In this section the response of all respondents at the first level is analysed against the response of all respondents at the top level. Table 8.22 shows the results of the multivariate analysis of the data obtained from the groups of internal auditors and chief internal auditors. These groups represent the two levels respectively. Looking at the table it can be noted that there are significant differences between the two groups in the perception of all four main components as well as the overall perception of the framework. The significant difference that exists between the two groups in their perception of the first component seems to be caused by univariate significant differences in all of three factors that form the component. Looking at the mean scores for the two groups, chief internal auditors seem to have a higher perception of the three factors than the perception held by internal auditors. Therefore, it could be said that chief internal auditors have a more favourable perception of the first component than that held by internal auditors.

Similarly the multivariate tests reveal a significant perceptual difference between the two levels on the operational component. Again, the cause of these differences are explained by the results of the post hoc F-test. The difference seems to be caused by significant perceptual differences in six out of the seven factors that make up the component.

Chief internal auditors seem to have more positive perception of these factors than internal auditors. However, there was only one operational factor that showed no significance. The two groups show a similar perception of the factor examining the process of selecting the auditor to carry out the audit task. Nonetheless, it could be noted that chief internal auditors have a perception of the organisational matters of internal auditing that is more compatible with the conceptual framework than the perception held by all internal auditors.

Likewise, the results of the Hotellings and Wilks Lambda tests reveal a significant difference from the first and top levels of internal auditors in the way they perceive the third component. All the factors that form the organisational component have shown significant perceptual differences between respondents from the two levels, as seen from the results of the post hoc F-test. The mean scores recorded by the two groups confirm that chief internal auditors have a significantly higher perception of all organisational factors than the perception held by internal auditors. Thus, it is concluded that respondents from the top level have a more positive perception of the organisational component.

The two groups also seem to perceive the external component in a significantly different manner, as revealed by the results of the multivariate tests. Again, this difference was caused by chief internal auditors having a significantly higher perception than internal auditors

of all the factors that form the component. This means that respondents from the top level perceive the external component more favourably than respondents from the first level.

Subsequently, the table shows that auditors from the two levels differ significantly in their overall perceptions of the framework. This is not a surprising result since the two groups of auditor seem to have significantly different perception of all but one of the factors that form the framework. And when it is considered that chief internal auditors have a higher perception of these factors than internal auditors, it is fair to conclude that chief internal auditors have a perception of the internal audit profession that is more compatible with the conceptual framework than the perception held by internal auditors. However, it should be mentioned that respondents from both levels showed positive perception of the different factors, components as well as the overall perception of the framework.

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<u>TABLE (8.22)</u> <u>PERCEPTION OF INTERNAL AUDIT</u> <u>ALL RESPONDENTS</u> <u>INTERNAL AUDITORS VS SENIOR INTERNAL AUDITORS</u> <u>MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA</u>

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First Component

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| Multivariate | e tests of si | ignificance | e | | Post l | noc Univaria | ate F-test |
|----------------------|---------------|----------------|------------------|---|-------------|--------------|------------------|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | <u>Var.</u> | F | Sig. of F |
| Hotellings | 1.858 | 119.558 | 0.000 | | F1 | 207.859 | 0.000 |
| Wilks | 0.350 | 119.558 | 0.000 | | F2 | 89.245 | 0.000 |
| | | | | | F3 | 188.677 | 0.000 |
| Second Com | ponent | | | | | | |
| Multivariate | tests of si | ignificance | : | | | | |
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | | |
| Hotellings | 2.772 | 74.849 | 0.000 | | | | |
| Wilks | 0.265 | 74.849 | 0.000 | | | | |
| | | | | | | | |
| Post hoc Uni | ivariate F- | test | | | | | |
| <u>Var.</u> <u>F</u> | <u>Sig.</u> | <u>of F</u> | | | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
| F4 39.1 | 24 0.0 | 00 | | | F8 | 81.158 | 0.000 |
| F5 0.1 | 42 0.7 | 07 | | | F9 | 82.731 | 0.000 |
| F6 233.0 | 0.0 | 00 | | | F10 | 28.629 | 0.000 |
| F7 72.9 | 0.0 | 00 | | | | | |
| | | | | | | | |
| Third Comp | <u>onent</u> | | | | | | |
| Multivariate | tests of si | ignificance | : | | | | |
| <u>Test Name</u> | Value | <u> </u> | <u>Sig. of F</u> | | | | |
| Hotellings | 3.534 | 83.043 | 0.000 | | | | |
| Wilks | 0.221 | 83.043 | 0.000 | | | | |
| | | | | | | | • |
| Post hoc Uni | variate F- | test | | | | | |
| <u>Var.</u> F | Sig | <u>z. of F</u> | | 1 | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
| F11 49.6 | | | | | F15 | 14.670 | 0.000 |
| F12 35.8 | 80 0.0 | 00 | | | F16 | 51.059 | 0.000 |
| F13 60.8 | 58 0.0 | 00 | | | F17 | 27.667 | 0.000 |
| F14 134.2 | 34 0.0 | 00 | | | F18 | 82.597 | 0.000 |
| | | | | | | | |

Fourth Component

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 0.471 | 30.280 | 0.000 | | | |
| Wilks | 0.680 | 30.280 | 0.000 | | | |

Post hoc Univariate F-test

| <u> Vаг.</u> | <u> </u> | Sig. of F |
|--------------|----------|-----------|
| F19 | 51.367 | 0.000 |
| F20 | 44.716 | 0.000 |
| F21 | 14.237 | 0.000 |

<u>Overall</u>

| Multivariate tests of significance | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | |
| Hotellings | 9.587 | 79.894 | 0.000 | | |
| Wilks | 0.094 | 79.894 | 0.000 | | |

8.6.3 Significant MANOVA differences between senior internal auditors and chief internal auditors

In this section the multivariate analysis was performed on the response of the final groups' pairing. The response of all respondents at the senior audit level was analysed against the response of all respondents at chief internal auditors level. The aim was to attest whether respondents from the two groups differ in the way they perceive the four components of the conceptual framework. The results of both multivariate tests shown in table 8.23 reveal significant perceptual differences between the two groups on all four main components as well as the overall perception of the framework.

The difference in the perception of the first component is instigated by significant perceptual differences in all the three factors under the component, as proved by the post hoc F-test. Chief internal auditors recorded significantly higher perception of all three factors than senior internal auditors. This leads to the conclusion that auditors at the top level of internal auditors perceive the first component in a more positive manner than respondents at the middle level. It should be noted that both groups recorded a relatively very favourable perception of the component.

The operational component was also perceived in significantly different ways by the two groups of internal auditors, as revealed by the results

of the multivariate tests. Again to get a clear insight into the cause of the multivariate difference one has to look at the results of the post hoc univariate test. The results of the F-test refer the multivariate difference to significant perceptual differences between the two groups in six of the seven factors within the second component. The only factor that did not show significance was that concerning the process of selecting the auditor to perform the audit. Hence, it could be said that chief internal auditors have a perception of the operational aspects of the internal audit profession that is more compatible with the conceptual framework than the perception held by senior internal auditors.

A similar pattern of results was obtained regarding the perception of the third component. The table reveals that senior internal auditors have a perception of the organisational component that is significantly different from that of chief internal auditors. This difference was due to significant differences between the two groups having significant perceptual differences in all eight factors that make up the component. And since chief internal auditors perceive all eight factors more positively than senior internal auditors, it could be concluded that chief internal auditors have a more positive perception of the component than senior internal auditors.

Furthermore, the multivariate tests reveal a significant difference between the senior internal auditors' perception of the external component and that of chief internal auditors. The cause of this significant difference seems to have been the two groups having shown significant perceptual differences in all three factors forming the component. This was also a result of the chief internal auditors having a significantly higher perception of the different aspects of the relationship with external auditors and the environmental responsibilities than the perception held by senior internal auditors. As a result it would appear that respondents from the top level have a more positive perception of the fourth component than senior internal auditors.

Finally, respondents from the two levels differ significantly in their overall perception, as can be seen from the results of both the Hotellings and Wilks Lambda tests. This was due to the two groups having shown significant differences in 20 out of the 21 factors that form the framework. The mean scores recorded by respondents from the two levels reveal that chief internal auditors have higher perception of all 20 factors than senior internal auditors. Hence, it could be concluded that chief internal auditors have a perception of the internal audit profession that is more compatible with the conceptual framework than that of senior internal auditors.

<u>TABLE (8.23)</u> <u>PERCEPTION OF INTERNAL AUDIT</u> <u>ALL RESPONDENTS</u> <u>SENIOR INTERNAL AUDITORS VS CHIEF INTERNAL AUDITORS</u> <u>MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA</u>

| First Co | mponent | | | | | |
|-----------------|----------------------|--------------------------|------------------|-------------|-------------|------------------|
| Multiva | riate tests of s | significanc | e | Post | hoc Univari | iate F-test |
| <u>Test Nan</u> | ne <u>Value</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
| Hotelling | s 1.578 | 81.536 | 0.000 | F 1 | 84.657 | 0.000 |
| Wilks | 0.388 | 81.536 | 0.000 | F2 | 55.050 | 0.000 |
| | | | | F3 | 133.763 | 0.000 |
| Second C | <u>Component</u> | | | | | |
| Multivar | iate tests of s | ignificanc | e | | | |
| <u>Test Nam</u> | <u>e Value</u> | <u> </u> | <u>Sig. of F</u> | | | |
| Hotelling | s 2.011 | 43.382 | 0.000 | | | |
| Wilks | 0.322 | 43.382 | 0.000 | | | |
| | | | | | | |
| Post hoc | Univariate F- | test | | ., | | |
| <u>Var.</u> | <u>F Sig. c</u> | of <u>F</u> | | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
| F4 3 | 5.569 0.00 | 00 | | F8 | 4.414 | 0.037 |
| F5 | 0.515 0.4 | 74 | | F9 | 15.914 | 0.000 |
| F6 16 | 7.724 0.00 | 00 | | F10 | 11.396 | 0.001 |
| F7 2 | 3.257 0.00 |)0 | | | | |
| | | | | | | |
| <u>Third Co</u> | <u>mponent</u> | | | | | |
| Multivari | ate tests of si | gnificanc <mark>e</mark> | 1 | | | |
| Test Name | | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 1.741 | 32.650 | 0.000 | | | |
| Wilks | 0.365 | 32.650 | 0.000 | | | |
| | | | | | | • |
| | Jnivariate F- | | | <u>Var.</u> | | |
| <u>Var.</u> | | <u>of F</u> | | F15 | <u> </u> | <u>Sig. of F</u> |
| | 1.717 0.00 | | | F16 | 9.813 | 0.002 |
| | 2.505 0.00 | | | F17 | 30.916 | 0.000 |
| | 5.601 0.00 | | | F18 | 23.205 | 0.000 |
| FI4 72 | 2.408 0.00 | 00 | | 10 | 59.216 | 0.000 |
| | | | | | | |
| | | | | | | |

Fourth Component

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| Multivariate tests of significance | | | | | |
|------------------------------------|--------|----------|------------------|--|--|
| Test Name | Value_ | <u> </u> | <u>Sig. of F</u> | | |
| Hotellings | 0.268 | 13.852 | 0.000 | | |
| Wilks | 0.789 | 13.852 | 0.000 | | |

Post hoc Univariate F-test

| <u>_</u> F | Sig. of F |
|------------|------------------|
| 35.703 | 0.000 |
| 10.567 | 0.001 |
| 7.568 | 0.007 |
| | 35.703 10.567 |

<u>Overall</u>

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------------|--------|------------------|--|--|--|
| <u>Test Name</u> | <u>Value</u> | F | <u>Sig. of F</u> | | | |
| Hotellings | 5.398 | 35.213 | 0.000 | | | |
| Wilks | 0.156 | 35.213 | 0.000 | | | |

8.6.4 Significant MANOVA differences between the three different levels

Table 8.24 shows the results of the multivariate analysis performed on the response obtained from all subjects at all three levels. The aim of the analysis was to examine the perceptual differences across the three groups of auditors. The table reveals a significant difference between respondents from the three levels in their perception of the first component of the framework. As revealed by the post hoc test, the difference was caused by significant perceptual differences between the three groups in all three factors under the component. Similarly, the results of the two multivariate tests reveal a significant difference between the three levels in their perception of the operational component. The results of the post hoc F-test give a clear insight into the cause of the multivariate difference. This seems to have been the three groups having shown significant perceptual differences in all but one of the factors that form the component. Only the factor regarding the process of selecting the internal auditor to carry out the audit task revealed an insignificant difference.

Furthermore, the results of both the Hotellings and Wilks Lambda tests reveal a significant difference across the three levels of internal auditors in the way they perceive the organisational component. The reason for this difference is that the respondents from the three different levels have shown significant differences in all the factors examining different

organisational aspects of the internal audit profession. The tests also show significant difference between the three groups in their perception of the external component of the framework. The post hoc F-test reveals that the multivariate difference was due to the three groups recording significantly different perception of all the three different aspects of the external facet of the profession. Moreover, the table reveals a significant difference between respondents from the three levels in their overall perception of the internal profession as projected by the conceptual framework. This was another conclusion since the three groups have showed a significantly different perception of all but one of the factors that form the framework. This factor was the one concerning selecting the auditor to perform the audit.

TABLE (8.24) PERCEPTION OF INTERNAL AUDIT ALL RESPONDENTS ACROSS ALL THREE LEVELS MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA

First Component

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| <u>First Compo</u> | onent | | | | | | |
|--------------------|--------------|---------------|------------------|---|-------------|-------------|------------------|
| Multivariat | e tests of a | significanc | e | | | hoc Univari | |
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
| Hotellings | 1.567 | 76.019 | 0.000 | | F 1 | 123.963 | 0.000 |
| Wilks | 0.382 | 60.148 | 0.000 | | F2 | 43.740 | 0.000 |
| | | | | | F3 | 111.145 | 0.000 |
| Second Com | ponent | | | | | | |
| Multivariate | | ignificanc | e | | | | |
| Test Name | Value | | <u>Sig. of F</u> | | | | |
| Hotellings | 2.366 | 48.510 | 0.000 | | | | |
| Wilks | 0.254 | 40.499 | 0.000 | | | | |
| | | | | | | | |
| Post hoc Uni | ivariate F | -test | | | | | |
| VarF | Sig. | ofF | | _ | <u>/ar.</u> | <u> </u> | <u>Sig. of F</u> |
| F4 26.1 | | | | - | F8 | 59.330 | 0.000 |
| F5 0.4 | | | |] | F9 | 49.552 | 0.000 |
| F6 118.4 | | | |] | F10 | 10.346 | 0.000 |
| F7 52.64 | | | | | | | |
| 1, 52.0 | | | | | | | |
| Third Comp | onent | | | | | | |
| Multivariate | | ignificance | P | | | | |
| Test Name | Value | F | <u>Sig. of</u> F | | | | |
| Hotellings | 2.422 | 43.287 | 0.000 | | | | |
| Wilks | 0.273 | 32.734 | 0.000 | | | | |
| W IIKS | 0.215 | 52.751 | 0.000 | | | | • |
| Post hoc Uni | variate F. | test | | | | | |
| VarF | | <u>. of F</u> | | 1 | Var. | <u> </u> | <u>Sig. of F</u> |
| F11 30.77 | | | | | F15 | 7.400 | 0.001 |
| F12 20.77 | | | | | F16 | 27.602 | 0.000 |
| F13 28.82 | | | | | F17 | 15.445 | 0.000 |
| F14 84.73 | | | | | F18 | 46.585 | 0.000 |
| 117 07.7. | | | | | | | |
| | | | | | | | |

| Fourth | Compo | nent |
|--------|-------|------|
| | | |

| <u>I our the Component</u> | | | | | |
|------------------------------------|--------------------------------|--|--|--|--|
| Multivariate tests of significance | | | | | |
| Value_ | <u> </u> | <u>Sig. of F</u> | | | |
| 0.339 | 16.455 | 0.000 | | | |
| 0.739 | 15.914 | 0.000 | | | |
| | e tests of s Value 0.339 | tests of significance <u>Value</u> <u>F</u> 0.339 16.455 | | | |

Post hoc Univariate F-test

| <u>Var.</u> | F | Sig. of F |
|-------------|--------|-----------|
| F19 | 28.144 | 0.000 |
| F20 | 24.971 | 0.000 |
| F21 | 7.199 | 0.001 |

<u>Overall</u>

| Multivariate tests of significance | | | |
|------------------------------------|--------------|----------|------------------|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> |
| Hotellings | 7.393 | 48.056 | 0.000 |
| Wilks | 0.088 | 30.939 | 0.000 |

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8.7 The Implications of the Significant Differences on the Different Elements of the Conceptual Framework

The following points should be noted when studying the results of the analysis of perceptual differences between the different levels of auditors. This is on the individual factors in each of thw two sectors as well as for all respondents.

There are significant differences in the way the different elements of the conceptual framework for internal auditing are perceived between the group of internal auditors and the group of senior internal auditors. However, the differences were only of high percentage in the case of the public sector under the non-parametric Mann-Whitney test, where there were 14 significant differences which represented 67% of the variables examined. In contrast, the significant differences under the T-test in the public sector and under both tests in the private sector were not very high since there was an average of 11 differences. Nevertheless, there was consistency in five elements that revealed significant differences under both tests in both sectors. These elements were: definition & objective of internal audit; selecting the auditee; reporting findings and recommendations; follow-up; and establishing plans, rules and policies. Furthermore, it should be noted that the differences between the two levels in both sectors resulted from senior internal auditors having a more positive perception of the particular aspects than that held by auditors at the lower level. This could be caused by a difference in experience and the number of years spent as

an auditor between the two groups of auditors. That in turn explains why the two groups seemed to have a different perception in some of the aspects of internal auditing.

- As the experience gap between some respondents at the two levels is not that great, there were some aspects of the internal audit profession that consistently revealed similarity in perception between the two groups under both the parametric and non-parametric tests in both sectors. These elements are: scope of audit work; staffing, training and development; environmental responsibilities. The similarity in perception of the scope of audit work resulted from auditors having a perception that is driven from their background and what is common in their sector. As revealed in the previous chapter, in the private sector the scope of the internal audit is perceived more in its wider sense than in the public sector. This was proven at the first two levels due to the financial orientation of auditors in the public sector. This may have influenced the similarity in the perception of the aspects of staffing, training and development. Meanwhile, the similarity on the perception of the environmental responsibilities of internal auditing could be caused by the relative unfamiliarity of this concept in developing countries, especially at lower levels of internal auditors.
- The results obtained from analysing the response of all respondents in the public and private sectors put together confirm the average number

of significant differences between internal auditors and senior internal auditors. Once again, there was a consistency in the elements that revealed significant differences since at least 10 of those elements showed significance in the case of each of the two sectors. Thus, those results further endorse the conclusion that there is a relationship between the level of internal auditors and the way in which they perceive the profession.

There was a high number of significant differences between the group of internal auditors and the group of chief internal auditors in they way the perceive the internal profession. This is emphasised by a difference percentage of 87% in the public sector and 81% in the private sector. Moreover, there were 14 elements that consistently revealed significant differences under both statistical tests in the two sectors. These elements are: definition and objective of internal audit; scope of audit work; common concepts; planning the audit; reporting findings and recommendations; follow-up, organisational status; membership of the IIA; staffing, training and development; establishing plans, rules and policies; relationship with auditees (regarding the audit report); quality assurance; and relationship with external auditors (general). Once more, the variance in perception between respondents from the two levels of auditors seems to be instigated by the differences in experience, organisational and professional commitment. The experience and commitment possessed by chief internal auditors

exhibits itself in the more favourable perception they showed on the different aspects of internal audit.

- Due to the high number of cases showing significant differences between internal auditors and chief internal auditors there was not a single element of the conceptual framework that consistently revealed no significant difference between the two groups in both sectors.
- The high rate of significant differences between internal auditors and chief internal auditors is also confirmed by the results of the analysis of all the respondents. The percentages of significant differences between all internal auditors and all chief internal auditors has recorded an absolute 100%, while under the T-test the rate is 96% with only the element testing the process of selecting the auditor revealing no significance.
- There were significant differences between senior internal auditors and chief internal auditors in 87% of the variables in the public sector and in 67% of the variables in the private sector. In the two sectors there were 10 elements that showed consistent significant differences under both statistical tests. These elements are: definition and objective of internal auditing, common concepts; selecting the auditee; planning the audit; staffing, training and development; establishing plans, rules and

policies; relationship with auditees (regarding the audit report); and quality assurance.

- On the other hand, there was only one element that consistently revealed no significant difference under both tests in the two sectors, this being the factor regarding selecting the auditor to perform the audit. This factor consistently revealed no difference in perception between the different groups of auditors in both sectors. As in the case of the scope of audit work, the similarity within each sector seems to be a result of all auditors in the sector influenced by their background and what exists in the sector.
- The significant differences between senior internal auditors and chief internal auditors, when all respondents in the two sectors are put together, reach a staggering 95%. Again, there was a great deal of consistency shown by the elements that revealed significant differences. Most of these elements showed significance in each of the two sectors and in the case of all respondents from both sectors put together.
- Across the three levels of auditors the perception of the different elements seems to differ significantly. The ANOVA test reveals significant differences in 90% of the elements in the public sector and 86% in the private sector. Similarly, in the case of all respondents

there were significant differences in 95% of the elements that make up the framework. It should be noted that the factor examining the process of selecting the internal auditor to perform the audit was the only factor that showed no significance in the case of all respondents and one of two factors that showed no significance in the case of the public sector.

• All the results stated above suggest that there exists a relationship between the level of internal auditors and the manner in which they perceive the internal audit profession. Therefore, the null hypothesis that proposes no differences in perception between different levels of auditors should be rejected.

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8.8 The Implications of the Significant Differences on the Four Components of the Conceptual Framework

Looking at the results of the MANOVA analysis in each of the two sectors and for all respondents the following should be noted:

- There are significant differences between the different groups in the perception of the four components of the framework. This was true in each of the two sectors as well as for all respondents. This means that there were significant differences between each pair of any two of the three levels of auditors under examination, in both the public and private sectors and for all respondents.
- The MANOVA tests also revealed significant differences across all three different levels in the perception of all four components. This happened in both the private and public sectors, as well as in the case of all respondents. Those differences were always a result of auditors at the higher level having a perception of the different aspects of internal audit that is more compatible with what is promoted by the conceptual framework than the perception held by respondents from the lower level.
- Consequently, respondents from the three different levels showed significant differences in their overall perception framework. As the multivariate analysis revealed, those differences were experienced in

the case of the comparison of two of the three different levels and in the case of the comparison across all three levels at the same time. Those differences were found in the case of analysing the response of each of the two sectors on its own and in the case of analysing the feedback of all respondents put together.

The results of the multivariate analysis confirm the conclusion drawn from the univariate analysis; that the perception of the different aspects of the internal audit profession is influenced by the experience and level of internal auditors. This leads to the rejection of the null hypothesis.

SUMMARY & CONCLUSION

Having studied the above mentioned findings, it is apparent that in the public sector the null hypothesis that predicts no difference in the perception of the internal audit profession between internal auditors with different levels of experience and from different levels of organisational hierarchy, could not be accepted. These results of the analyses proves that there are significant differences between each of the three groups and the other two groups, as well as across all three levels in most of the elements of the conceptual framework of internal auditing. The significant differences reached a percentage of 86% in the cases of chief internal auditors against both internal auditors and senior internal auditors. When analysing the response of the group of internal auditors against the response of the senior internal auditors, the elements that reveal significant differences represented 67% of the total number of the elements under the non-parametric Mann-Whitney test. However, the number of elements showing significant differences under the parametric T-test was less than that in the case of Mann-Whitney by three elements. Meanwhile, the ANOVA test reveals that there were significant differences in 90% of the factors that make up the framework

Similarly in the private sector the null hypothesis could not be accepted since on most of the variables there were significant differences between the three research groups representing the three levels of internal auditors. The percentage of significant differences was a high 81% when the response of internal auditors was compared with that of chief internal auditors, and 67% in the case of senior internal auditors versus chief internal auditors. However, the analysis of the response of internal auditors with

the response of senior internal auditors only provides an average 53% elements with significant differences. These results follow the same pattern as the results obtained in the public sector. It should be noted that the lowest number of significant differences in both sectors was when comparing the response of internal auditors with that of senior internal auditors. Moreover, the significant perceptual differences across all three groups reached 86% of the different elements of the conceptual framework, as was seen from the results of the ANOVA analysis.

Moreover, in the case of all respondents the null hypothesis could not be accepted in view of the results of both the parametric and non-parametric tests, as well as the analysis of variance performed to examine the perceptual differences between the three groups on the individual elements of the framework. The tests revealed that between internal auditors and senior internal auditors there were significant perceptual differences in 48% of the elements. Meamwhile, the differences between internal auditors and chief internal auditors were recorded in almost 100% of the elements, and senior internal auditors showed a significantly different perception from that of chief internal auditors in about 95% of the factors making up the framework.

On the other hand, the results of MANOVA tests revealed significant differences in the perception of the four components and in the overall perception of the framework. These differences were found when the response of each of three levels was analysed against that of one of the other two, both in the public and private sectors as well as for all respondents put together. Also, these differences were revealed when the analysis of response was performed across all three levels. Again, this was true in the

case of each of the two sectors and in the case of all respondents. This meant that there were absolute 100% differences in the perception of the four components as well as the overall perception of the framework. This proved true in all cases of analysis. Thus it could be said that in all cases there were significant differences between and across all three levels of internal auditors in the way they perceive their profession. Hence, the null hypothesis proposing the existence of no significant differences between the different levels could not be accepted as valid.

It should also be noted that the mean and median scores show that the perception of the different elements of the conceptual framework gets significantly higher as the level of auditors gets higher, except in one or two odd cases. This means that chief internal auditors have a perception of the internal audit profession that is more compatible with the conceptual framework than the perception held by internal auditors and senior internal auditors. Similarly, senior internal auditors showed a more positive perception of the different elements of the internal audit than that of internal auditors. This pattern of results was repeated in both the public and private sectors, as well as in the case of all respondents. However, it should be noted that. generally, respondents from all three levels showed a positive perception of the internal audit profession and, as mentioned in the previous chapter, respondents from the public sector seem to have a more positive perception than that of respondents in the public

To conclude, the way internal auditors perceive their profession seems to correspond with the level of internal auditors and their degree of experience. It seems that the

internal auditors' level of experience is a positive factor contributing to the way in which the profession is perceived.

CHAPTER NINE

9. INTER-SECTOR DIFFERENCE IN THE PRACTICE OF INTERNAL AUDIT

In this chapter the third hypothesis that proposes differences between the practice of internal auditing in the public and private sectors was examined to determine whether the significance of these differences was high enough to reject the null hypothesis. The hypothesis was examined by first analysing the response of each of the three research groups within one of the two sectors with the response obtained from the corresponding group in the other sector. Then the response of all respondents in the public sector was analysed against the respondents in the private sector.

The analyses were based on the 26 factors that represented the 71 items included in the practice questionnaire. These factors were reached using factor analysis as explained in chapter six. Then the combined scores for the four components and the overall scores was analysed to assess the differences between the two sectors. The statistical techniques used to perform the analyses again included both parametric and non-parametric tests and multivariate data analysis.

9.1 Differences on The Twenty-Six Element of the Conceptual Framework of Internal Auditor

9.1.1 Significant Mann-Whitney & T-test differences between the two groups of internal auditors from the public and private sectors Table 9.1 shows results of analysis focusing on the response from the group of internal auditors in the public sector and the response of the corresponding group in the private sector. These two groups represent the first of three levels of internal auditors under examination. The results shown in table 9.1 reveal that under the non-parametric Mann-Whitney test there are 17 cases of significant differences between the practice of internal auditing between the public and private sectors, as seen by internal auditors working in the two sectors. The results of the parametric T-test confirm the great deal of consistency shown between results obtained from parametric and non-parametric tests. Under the T-test there are 18 elements revealing significant differences between the practice in the two sectors. It should be noted that under both tests there were 17 elements that consistently revealed significant differences between the two sectors. Thus, all elements showing significance under Mann-Whitney also revealed significance under the T-test. The only element that showed significance under the T-test but not under the Mann-Whitney was that regarding the internal audit field work. The remaining elements showed consistent insignificant differences between the practice of internal auditing in the two sectors

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as viewed by the two groups of internal auditors. These elements were: definition and objective of internal auditing; selecting the auditee; planning the audit; economy and efficiency measures; effectiveness measures; staffing (development); staffing (training programmes); and relationship with auditees.

9.1.2 Significant Mann-Whitney & T-test differences between the two groups of senior internal from the public and private sectors Table 9.2 provides the result of the analysis for the two groups representing the second of the three levels of internal auditors, namely the groups of senior internal auditors / internal audit managers. As can be noted from the table there is again a great deal of consistency in the results obtained from the two statistical tests. Under the Mann-Whitney test there were 17 significant differences between the practice of internal auditing in the public and private sectors, while under the T-test the number of elements showing significance has gone up to 18. All the factors that showed significance under the Mann-Whitney test also did so under the T-test and in addition the factor regarding planning the audit showed significance under the T-test. The remaining eight factors showed no significant difference in the practice of internal auditing - as viewed by senior internal auditors between the public and private sectors. These elements were: definition and objective of internal audit; scope of audit work; effectiveness

measures; staffing (all aspects); establishing audit department plans; and relationship with external auditors (general).

9.1.3 Significant Mann-Whitney & T-test differences between the two groups of chief internal from the public and private sectors

Table 9.3 shows the results of both the parametric and non-parametric tests performed on the response of the two groups of chief internal auditors regarding the way they view the practice of internal auditing in their organisation. The table reveals significant differences between the two sectors in most of the factors examining the different aspects of the practice of internal auditing. As can be seen from the table, the Mann-Whitney test revealed significant differences in 18 of the factors, while in the case of the T-test there were 17 cases of significant differences. The reason for the slight discrepancy between the results of the two tests was that the factor regarding selecting the auditee revealed significance under the Mann-Whitney test while it did not do so under the T-test. Furthermore, the results of the two tests were absolutely identical regarding the remaining eight factors that showed no significant differences between the practices of internal auditing in the public and private sectors. These factors were: definition and objective of internal auditing; field work; economy and efficiency measures; staffing (training programmes); establishing rules and policies;

establishing audit department plans; relationship with auditees (discussing audit objectives); and environmental responsibilities.

9.1.4 Significant Mann-Whitney & T-test differences between all respondents in the public and all respondents in the private sectors Having studied the difference in the practice of internal auditing between the public and private sectors as viewed by each of the three levels of internal auditors, in this section the tests was performed on the response obtained from all respondents from both sectors. Table 9.4 shows the results of both the Mann-Whitney and T-tests performed to attest the difference between the practice of internal auditors in both sectors as viewed by all respondents. The results shown in the table reveal absolutely identical patterns of results obtained from both parametric and non-parametric tests. Both tests reveal 17 cases of significant differences between the practice of internal auditors in the two sectors. Also, there was absolute consistency between the two tests in the factors showing no significant differences. These were: definition and objective of internal auditing; field work; effectiveness measures; staffing (development); staffing (training programmes); establishing audit department rules and policies; establishing audit department plans; relationship with auditees (discussing audit objectives); and relationship with external auditors (general).

9.1.5 Significant ANOVA difference between the public and private sectors

Table 9.5 shows the results of the analysis of variance using the F-test performed at each of three levels and for all respondents from both the public and private sectors. Again, the aim of the analysis is the examine the difference in the way internal auditing is practised between the sectors. The table show that the results obtained through the F-test correspond to that obtained through the Mann-Whitney and T-tests in the case of comparing the views of respondents at each of the three levels of auditors, and in the case of all respondents. In the case of analysing the response of the two groups of internal auditors there were 18 cases of significant differences in the way the respondents viewed the practice of internal auditing in their organisation. Meanwhile, respondents at the middle level of internal auditors reveal significant difference in the way they view 18 of the different aspects of the practice of internal auditing. On the other hand, the F-test reveals that in the opinion of the top level of internal auditors the practice of internal auditing in the public sector differs significantly from that in the private sector in 17 out of 26 factors examining the different aspects of the practice of internal audit. Moreover, the results of the ANOVA analysis reveal significant differences in 17 of the different aspects of the practice of internal audit as viewed by all respondents. All these results confirm the results obtained from the parametric and non-parametric tests, and it should be also noted that the factors that
showed no significant differences under the F-test were the same factors that showed no significance in the case of the Mann-Whitney and T-tests.

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TABLE 9.1¹ PUBLIC SECTOR VS PRIVATE SECTOR INTERNAL AUDITORS INTERNAL AUDITORS T-TEST & MANN-WHITNEY

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| VARIABLE | T-test | Mann-Whitney |
|---|-----------|--------------|
| Definition & Objectives of Internal Auditing | 1.95* | 1341.5 |
| Scope of Audit Work | -8.01*** | 550.5*** |
| Effectiveness Testing | -6.91*** | 675*** |
| Planning the Audit (Selecting the Auditee) | -1.80* | 1255* |
| Planning the Audit (Selecting the Auditor) | 3.86*** | 900.5*** |
| Planning the Audit (Setting the Time, Objective & Scope, Preliminary Survey, Audit Programme) | 0.50 | 1275.5 |
| Field Work | -2.21** | 1197* |
| Preparing Draft Report | -9.91*** | 575.5*** |
| Reporting Findings & Recommendations | -12.44*** | 135*** |
| Follow-up | -11.78*** | 320*** |
| Economy & Efficiency Measures | -1.12 | 1397 |
| Effectiveness Measures | -1.71* | 1240* |
| Organisational Status | 4.33*** | 771.5*** |
| Staffing (General Policies) | 2.47** | 1098*** |
| Staffing (Recruitment) | 5.01*** | 742.5*** |
| Staffing (Development) | -1.43 | 1312* |
| Staffing (Training Programmes) | -0.34 | 1327.5 |
| Establishing Policies & Rules | 6.19*** | 618*** |
| Establishing Audit Department Plans | 4.69*** | 832*** |
| Relationship with Auditees | -1.51 | 1383.5 |
| Relationship with Auditees (Discussing Audit Objectives) | -4.52*** | 840.5*** |
| Quality Assurance | -3.54*** | 958.5*** |
| Relationship with External Auditors (Co-operation) | -7.94*** | 366*** |
| Relationship with External Auditors (General) | -2.87*** | 1105*** |
| Relationship with External Auditors (Benefiting from External Auditors) | -6.03*** | 850.5*** |
| Environmental Responsibilities | 2.20** | 1109.5** |

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- <u>Key:</u> *** Significant @ 99% ** Significant @ 95%

 - * Significant @ 90%

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TABLE (9.2)¹ PUBLIC SECTOR VS PRIVATE SECTOR SENIOR INTERNAL AUDITORS SENIOR INTERNAL AUDITORS **T-TEST & MANN-WHITNEY**

| VARIABLE | T-test | Mann-Whitney |
|---|-----------|--------------|
| Definition & Objectives of Internal Auditing | -1.68* | 742 |
| Scope of Audit Work | 0.20 | 844 |
| Effectiveness Testing | -4.11*** | 660.5** |
| Planning the Audit (Selecting the Auditee) | -3.20*** | 621.5*** |
| Planning the Audit (Selecting the Auditor) | 6.94*** | 219.5*** |
| Planning the Audit (Setting the Time, Objective & Scope, Preliminary Survey, Audit Programme) | 2.12** | 683* |
| Field Work | 3.21*** | 531*** |
| Preparing Draft Report | -6.98*** | 379*** |
| Reporting Findings & Recommendations | -6.20*** | 398*** |
| Follow-up | -6.20*** | 357.5*** |
| Economy & Efficiency Measures | -3.54*** | 543.5*** |
| Effectiveness Measures | -1.19 | 811 |
| Organisational Status | 3.15*** | 398*** |
| Staffing (General Policies) | 2.57** | 645*** |
| Staffing (Recruitment) | 1.14 | 808.5 |
| Staffing (Development) | 1.27 | 844 |
| Staffing (Training Programmes) | 0.74 | 858 |
| Establishing Policies & Rules | _4.54*** | 421*** |
| Establishing Audit Department Plans | 0.13 | 880 |
| Relationship with Auditees | 2.10** | 604** ، |
| Relationship with Auditees (Discussing Audit Objectives) | 2.19** | 679.5** |
| Quality Assurance | -2.49** | 657** |
| Relationship with External Auditors (Co-operation) | -14.01*** | 114*** |
| Relationship with External Auditors (General) | 0.30 | 827.5 |
| Relationship with External Auditors (Benefiting from External Auditors) | -7.77*** | 382.5*** |
| Environmental Responsibilities | 2.29** | 617.5** |

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Key: *** Significant @ 99% ** Significant @ 95% * Significant @ 90%

TABLE (9.3)¹ PUBLIC SECTOR VS PRIVATE SECTOR CHIEF INTERNAL AUDITORS **CHIEF INTERNAL AUDITORS T-TEST & MANN-WHITNEY**

| VARIABLE | T-test | Mann-Whitney |
|--|----------|--------------|
| Definition & Objectives of Internal Auditing | -1.00 | 393 |
| Scope of Audit Work | -2.53** | 296** |
| Effectiveness Testing | -3.32*** | 310.5*** |
| Planning the Audit (Selecting the Auditee) | 0.91 | 276** |
| Planning the Audit (Selecting the Auditor) | 8.49*** | 58*** |
| Planning the Audit (Setting the Time, Objective & | 5.20*** | 108.5*** |
| Scope, Preliminary Survey, Audit Programme) | | |
| Field Work | 1.08 | 338.5 |
| Preparing Draft Report | -5.46*** | 146.5*** |
| Reporting Findings & Recommendations | -9.01*** | 70.5** |
| Follow-up | -4.21*** | 245*** |
| Economy & Efficiency Measures | -0.73 | 383.5 |
| Effectiveness Measures | 3.84*** | 207*** |
| Organisational Status | 3.78*** | 146*** |
| Staffing (General Policies) | 5.33*** | 142*** |
| Staffing (Recruitment) | 3.96*** | 208.5*** |
| Staffing (Development) | 3.10*** | 258*** |
| Staffing (Training Programmes) | 1.88* | 346 |
| Establishing Policies & Rules | -0.61 | 371 |
| Establishing Audit Department Plans | -1.28 | 419 |
| Relationship with Auditees | 4.26*** | 160.5*** |
| Relationship with Auditees (Discussing Audit | 1.33 | 353.5 |
| Objectives) | | |
| Quality Assurance | -4.96*** | 153*** |
| Relationship with External Auditors (Co-operation) | -7.07*** | 115.5*** |
| Relationship with External Auditors (General) | 3.01*** | 239.5*** |
| Relationship with External Auditors (Benefiting | -4.03*** | 241.5*** |
| from External Auditors) | | |
| Environmental Responsibilities | 1.96* | 309* |

* Significant @ 90%

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¹Key: *** Significant @ 99%

^{**} Significant @ 95%

TABLE (9.4)¹ PUBLIC SECTOR VS PRIVATE SECTOR ALL RESPONDENTS ALL RESPONDENTS T-TEST & MANN-WHITNEY

| VARIABLE | T-test | Mann-Whitney |
|---|-------------------|--------------|
| Definition & Objectives of Internal Auditing | 0.74 | 7109.5* |
| Scope of Audit Work | -6.23*** | 5026*** |
| Effectiveness Testing | -8.85*** | 4814*** |
| Planning the Audit (Selecting the Auditee) | -2.57** | 6944** |
| Planning the Audit (Selecting the Auditor) | 10.48*** | 2686.5*** |
| Planning the Audit (Setting the Time, Objective & | 3.45*** | 6045.5 |
| Scope, Preliminary Survey, Audit Programme) | | |
| Field Work | 1.82 | 7410 |
| Preparing Draft Report | <u>-1</u> 2.49*** | 3026*** |
| Reporting Findings & Recommendations | -17.16*** | 1718.5*** |
| Follow-up | -12.58*** | 2817*** |
| Economy & Efficiency Measures | -2.77*** | 6759** |
| Effectiveness Measures | 0.15 | 7870.5 |
| Organisational Status | 4.62*** | 5107*** |
| Staffing (General Policies) | 4.28*** | 5619.5*** |
| Staffing (Recruitment) | 5.40*** | 5088*** |
| Staffing (Development) | 1.14 | 7992 |
| Staffing (Training Programmes) | 1.06 | 7935.5 |
| Establishing Policies & Rules | 1.03 | 7914.5 |
| Establishing Audit Department Plans | 1.39 | 7960 |
| Relationship with Auditees | 2.53** | 6280*** |
| Relationship with Auditees (Discussing Audit Objectives) | -0.47 | 7519.5 |
| Quality Assurance | -6.08*** | 4832*** |
| Relationship with External Auditors (Co-operation) | -15.92*** | 1538*** |
| Relationship with External Auditors (General) | -0.86 | 7844.5 |
| Relationship with External Auditors (Benefiting from External Auditors) | -10.44*** | 4117.5*** |
| Environmental Responsibilities | 3.56*** | 5997.5*** |

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¹<u>Key</u>: *** Significant @ 99% ** Significant @ 95% * Significant @ 90%

| <u>TABLE $(9.5)^1$</u> | | | | | | |
|-----------------------------------|---|--------------------------|--|--|--|--|
| PUBLIC SECTOR | VS_ | PRIVATE SECTOR | | | | |
| INTERNAL AUDITORS | _ | INTERNAL AUDITORS | | | | |
| SENIOR INTERNAL AUDITORS | _ | SENIOR INTERNAL AUDITORS | | | | |
| CHIEF INTERNAL AUDITORS | CHIEF INTERNAL AUDITORS CHIEF INTERNAL AUDITORS | | | | | |
| ALL RESPONDENTS ALL RESPONDENTS | | | | | | |
| ANOVA F-TEST | | | | | | |

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| VARIABLE | PUA v PRA | PUM v PRM | PUC v PUR | ALL v ALL |
|--|------------|------------|------------------|------------|
| Definition & Objectives of Internal Auditing | 5.704** | 2.077 | 0.935 | 0.543 |
| Scope of Audit Work | 44.892*** | 0.039 | 5.810** | 32.879*** |
| Effectiveness Testing | 36.046*** | 9.603*** | 9.280*** | 51.622*** |
| Planning the Audit (Selecting the Auditee) | 2.728 | 7.019*** | 0.715 | 5.036** |
| Planning the Audit (Selecting the Auditor) | 22.200*** | 55.457*** | 72.144*** | 131.345*** |
| Planning the Audit (Setting the Time, | 0.254 | 5.722** | 27.003*** | 11.918*** |
| Objective & Scope, Preliminary Survey, | | | | |
| Audit Programme) | 2.100± | 10 (07++++ | | |
| Field Work | 3.182* | 13.627*** | 1.168 | 3.322* |
| Preparing Draft Report | 48.616*** | 31.031*** | | 109.891*** |
| Reporting Findings & Recommendations | 154.742*** | 21.542*** | 81.161*** | 194.248*** |
| Follow-up | 85.603*** | 29.057*** | <u>15.490***</u> | 112.495*** |
| Economy & Efficiency Measures | 1.264 | 12.558*** | 0.527 | 7.660*** |
| Effectiveness Measures | 2.908 | 1.119 | 14.728*** | 0.019 |
| Organisational Status | 18.744*** | 9.911*** | 12.814*** | 21.299*** |
| Staffing (General Policies) | 5.959** | 6.619** | 25.704*** | 18.314*** |
| Staffing (Recruitment) | 29.878*** | 1.752 | 17.139*** | 36.632*** |
| Staffing (Development) | 2.053 | 1.614 | 9.605*** | 1.297 |
| Staffing (Training Programmes) | 0.113 | 0.718 | 3.529* | 1.374 |
| Establishing Policies & Rules | 38.295*** | 20.570*** | 0.352 | 1.285 |
| Establishing Audit Department Plans | 22.025*** | 0.016 | 1.439 | 2.181 |
| Relationship with Auditees | 2.268 | 4.407** | 16.554*** | 5.394** |
| Relationship with Auditees (Discussing | 20.427*** | 5.427** | 1.770 | 0.223 |
| Audit Objectives) | | | | |
| Quality Assurance | 12.501*** | 7.121*** | 24.598*** | 41.564*** |
| Relationship with External Auditors (Co- | 63.035*** | 114.413*** | 44.535*** | 212.233*** |
| operation) | | Í | | 1 |
| Relationship with External Auditors | 6.502** | 0.088 | 9.081*** | 0.615 |
| (General) | [| | | |
| | 23.357*** | 35.399*** | 14.829*** | 75.654*** |
| (Benefiting from External Auditors) | | | | 1 |
| Environmental Responsibilities | 4.848** | 5.260** | 3.851* | 12.651*** |

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¹ Key: *** Significant @ 99%

** Significant @ 95%

* Significant @ 90%

PUA / PRA = Public / Private Sector Internal Auditors

PUM / PRM = Public / Private Sector Senior Internal Auditors

PUC / PRC = Public / Private Sector Chief Internal Auditors

PUALL / PRALL = Public / Private All Respondents

9.2 The Implications of the Results Univariate Analysis

Looking at the results of the Mann-Whitney and T-tests, as well as the ANOVA F-test, there are a number of facts that should be noted. These are:

- (1) In all cases of analysis the public and private sectors seem to differ in their practice of most aspects of internal auditing. All three tests reveal that there were significant differences between the two sectors in about 67% of the factors examining the different aspects of internal auditing. This percentage was almost exactly the same in all cases of analysis.
- (2) There were several factors that consistently showed significant differences between the practice of internal auditing in the public and private sectors, under all three tests, in all cases of analysis. These were the factors examining the practice of the following aspects of internal audit: effectiveness testing; selecting the auditor to perform the audit; preparing the draft report; reporting findings and recommendations; follow-up; organisational status; staffing (general policies); quality assurance; relationship with external auditors (co-operation); and relationship with external auditors (benefiting from the knowledge & techniques of external auditors).
- (3) All three tests reveal that, in the opinion of all of the different groups of internal auditors, the practice of internal audit in terms of the definition and objective internal audit and staffing (training

programmes) does not differ significantly between the public and private sectors.

- (4) There were a number of factors that revealed significant differences between the practice of internal auditing in the two sectors according to two of three different research groups, as well as all respondents. The factors regarding the scope of audit work and staffing (recruitment) revealed significant differences between the two sectors in the view of the first and top levels of internal auditors as well as all respondents. Only the two groups of senior internal auditors representing the middle level of internal auditors in the two sectors did not seem to see any differences in the practice of these two sectors. On the other hand, the practice of internal auditing in terms of the relationship with auditees reveals a significant difference between the two sectors in the opinion of all research groups apart from the two groups representing the first level of internal auditors. Meanwhile, only the two groups representing the first level of internal auditors did not see any significant difference between the two sectors in the practice of the environmental responsibilities of internal auditing.
- (5) There were six factors that revealed significant differences in only two of the four cases of analysis under the three statistical tests. The practice of the process of selecting the auditee and economy and efficiency measures used in performing the audit seem to be

9.2 The Implications of the Results Univariate Analysis

Looking at the results of the Mann-Whitney and T-tests, as well as the ANOVA F-test, there are a number of facts that should be noted. These are:

- (1) In all cases of analysis the public and private sectors seem to differ in their practice of most aspects of internal auditing. All three tests reveal that there were significant differences between the two sectors in about 67% of the factors examining the different aspects of internal auditing. This percentage was almost exactly the same in all cases of analysis.
 - (2) There were several factors that consistently showed significant differences between the practice of internal auditing in the public and private sectors, under all three tests, in all cases of analysis. These were the factors examining the practice of the following aspects of internal audit: effectiveness testing; selecting the auditor to perform the audit; preparing the draft report; reporting findings and recommendations; follow-up; organisational status; staffing (general policies); quality assurance; relationship with external auditors (co-operation); and relationship with external auditors (benefiting from the knowledge & techniques of external auditors).
 - (3) All three tests reveal that, in the opinion of all of the different groups of internal auditors, the practice of internal audit in terms of the definition and objective internal audit and staffing (training

in the same time, which revealed significant differences in the practice of at least 65% of the factors examining the different aspects of the practice of internal auditing. And at least 50% of these factors showing significance did so in all cases of analysis under the three univariate statistical tests. It is also apparent that not all three levels of internal auditors agree on the difference in the practice of some aspects of the practice of internal audit between the public and private sectors. However, this was expected since the different levels of internal auditors were bound to view some of the aspects of the practice of internal auditors view the practice, it was obvious that some of the factors would be influenced by how close the group was associated to the factor. Nonetheless, the most important finding is that, in the case of analysing the response of all respondents in the public sector with that of all respondents in the private sector, it seems that there are significant differences between the two sectors in the practice of most aspects of internal auditing.

9.3 Significant Differences on the Four Components of the Conceptual Framework of Internal Auditor

In the following few paragraphs the difference between the practice of internal auditing in the public and private sectors will be examined in terms of the four main aspects of the internal audit profession. The technique used to carry out _ such an examination is the multivariate analysis as opposed to the one way analysis of variance used to examine the difference in terms of the individual

elements of the conceptual framework. The tests used are the multivariate tests of Hotellings and Wilks Lambda. These tests are accompanied by the post hoc F-test which would be performed to give clear insight into the cause of the results revealed by the multivariate tests. The analysis would be carried in two stages. First, response from the two groups at each of the three different levels of auditors would be subjected to the analysis independently and in turn, and then the analysis would be performed to compare the response from all respondents in the public sector with the all respondents from the private sector.

9.3.1 Significant MANOVA difference between the two groups of internal auditors

Table 9.6 shows the results of the multivariate analysis performed on the response of the two groups of internal auditors that represent the first level of auditors. The table reveals that the practice of internal auditing differs significantly between the two sectors in all four components of the framework as well as the practice in general. The post hoc univariate test shows that the difference in the practice regarding the first component was caused by significant differences in all three factors that form the component. And looking at the mean scores recorded by the two groups, it seems that the practice of internal auditing regarding the definition and objective of internal auditing is more compatible with the conceptual framework in the public sector

than in the private sector. The practice, in terms of the scope of audit work and effectiveness testing, seems to be more compatible with what is promoted by the conceptual framework in the private sector rather than in the public sector.

Meanwhile, the difference shown by the two multivariate tests between the two sectors in the practice of the operational aspects of the internal audit, seems to be caused by significant univariate differences in four of the factors examining the different operational aspects. Three of these factors showed that the practice of internal auditing in the private sector is more compatible with the framework than the practice in the public sector. These were the factors regarding: preparing the draft report; reporting findings and recommendations; follow-up. , Meanwhile, the practice of the process of selecting the auditor to perform the audit seems to be more compatible with the conceptual framework in the public sector. The factors that showed no significant differences in the practice of internal auditing between the two sectors were: selecting the audite; planning the audit; field work; economy and efficiency measures; and effectiveness measures.

Similarly, both the Hotelling and Wilks Lambda tests reveal significant differences in the organisational aspects of the practice of internal auditing - as viewed by internal auditors - between the two sectors. The reason for this significant difference seems to be the existence of significant differences in seven out of the ten factors that make up the component. All but two of these factors showed that the practice of internal auditing in the public sector is more compatible with the framework than that in the private sector. The other two factors revealed exactly the opposite; these factors were the ones regarding relationship with auditees (discussing audit objectives) and quality assurance. The three organisational factors that revealed no significant differences between the practice of internal audit in the two sectors were: staffing (development); staffing (training programmes); and relationship with auditees.

On the other hand, the difference revealed in the external aspects seems to be caused by significant univariate differences in all four factors forming the component, as could be said of the results of the F-test. And looking at the mean scores recorded by the two groups, it appears that the practice of all but one of these aspects revealed a more compatible practice with the framework in the private rather than the public sector. The one factor that showed a more compatible practice in the public sector was dealing with the environmental responsibilities. Furthermore, the two multivariate tests reveal a significant difference between the practice of internal audit in general between the public and private sectors. This was due to the two sectors having shown significant differences in 18 of the 26 factors examining the different elements of the practice of internal auditing.

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TABLE (9.6)

PRACTICE OF INTERNAL AUDIT

PUBLIC SECTORVSPRIVATE SECTORINTERNAL AUDITORSINTERNAL AUDITORSMANOVA TESTS OF HOTELLINGS & WILKS LAMBDA

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First Component

| Multivariate tests of significance | | | Post | hoc Univa | ariate F-test | |
|------------------------------------|--------------|----------|------------------|-------------|---------------|------------------|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
| Hotellings | 0.753 | 28.354 | 0.000 | F1 | 5.704 | 0.019 |
| Wilks | 0.571 | 28.354 | 0.000 | F2 | 44.892 | 0.000 |
| | | | | F3 | 36.046 | 0.000 |

Second Component

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 0.753 | 28.354 | 0.000 | | | |
| Wilks | 0.571 | 28.354 | 0.000 | | | |

Post hoc Univariate F-test

| Var. | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|------|----------|------------------|-------------|----------|------------------|
| F4 | 2.728 | 0.101 | F9 | 154.742 | 0.000 |
| F5 | 22.200 | 0.000 | F10 | 85.603 | 0.000 |
| F6 | 0.254 | 0.615 | F11 | 1.264 | 0.263 |
| F7 | 3.182 | 0.077 | F12 | 2.908 | 0.091 |
| F8 | 48.616 | 0.000 | | | |

Third Component

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|--|
| Test Name | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 1.107 | 11.732 | 0.000 | | | |
| Wilks | 0.475 | 11.732 | 0.000 | | | |

Post hoc Univariate F-test

| Var. | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|------|----------|------------------|-------------|----------|------------------|
| F13 | 18.744 | 0.000 | F18 | 38.295 | 0.000 |
| F14 | 5.959 | 0.016 | F19 | 22.025 | 0.000 |
| F15 | 29.878 | 0.000 | F20 | 2.268 | 0.135 |
| F16 | 2.053 | 0.155 | F21 | 20.427 | 0.000 |
| F17 | 0.113 | 0.738 | F22 | 12.501 | 0.001 |

Fourth Component

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 0.810 | 22.674 | 0.000 | | | |
| Wilks | 0.553 | 22.674 | 0.000 | | | |

Post hoc Univariate F-test

| <u>Var.</u> | F | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|-------------|--------|------------------|-------------|----------|------------------|
| F23 | 63.035 | 0.000 | F25 | 23.357 | 0.000 |
| F24 | 6.502 | 0.012 | F26 | 4.848 | 0.030 |

<u>Overall</u>

| Multivariate tests of significance | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | |
| Hotellings | 5.616 | 19.440 | 0.000 | | |
| Wilks | 6.502 | 19.440 | 0.000 | | |

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In this section the response of the two groups representing the middle level of internal auditors was analysed to attest the difference between the practice of internal auditing in the public and private sectors. Table 9.7 shows the results of the multivariate analysis performed on the response of the two groups of senior internal auditors. The table reveals a significant difference in the practice of internal auditing between the two sectors in terms of the first component. This was true under both the Hotellings and Wilks Lambda tests. The cause of this significant difference is explained by the results of the post hoc F-test as being the existence of a significant difference in one of the three aspects of the component. It is apparent that the practice of internal auditing in terms of effectiveness testing is more compatible with the framework in the private than the public sector.

The two multivariate tests also reveal significant differences between the two sectors in the practice of the operational aspects of internal auditing, as can be seen from the table of the Hotellings and Wilks Lambda tests that the two groups reveal significant difference on the operational component. This multivariate difference was due to the two groups having shown significant univariate differences in all but one of the factors that make up the component, as can be seen from the results of the post hoc univariate F-test. The mean scores reveals that

in the case of three of these factors the significance was the result of the practice of internal auditing in the public sector being significantly more compatible with the frame work than the practice in the private sector. These factors were: selecting the auditor; planning the audit; and field work. The remaining five factors that showed significance revealed that the practice of internal auditing in the private sector is more compatible with the framework than that in the public sector. Meanwhile, the only factor that showed no significant difference in the practice of internal auditing between the two sectors was that dealing with effectiveness measures.

Similarly, the results shown in the table reveal a significant difference in the practice of internal audit in terms of the organisational component between the public and private sectors. The results of the post hoc univariate test give a clear insight into the cause of the multivariate difference that seems to be caused by significant differences between the two sectors in the practice of six of the ten factors examining the different organisational aspects. Four of these elements revealed that the practice of internal auditing in the public sector is more compatible with the conceptual framework than the practice in the private sector. These were the factors regarding: organisational status; staffing (general policies); relationship with auditees; and relationship with auditees (discussing audit objectives). On the other hand, the practice in terms of establishing plans and rules, and quality assurance is more

compatible with the framework in the private sector rather than in the public sector. However, there was no significant difference in the practice of internal auditing between the two sectors in terms of the following factors: staffing (recruitment); staffing (development); staffing (training programmes); and establishing the internal audit department plans.

The table also reveals a significant difference in the practice of the external aspects of internal auditing. As can be seen the results of both multivariate tests the two sectors showed significant difference on the external component. This multivariate difference was due to the two sectors having shown significant differences in the practice of three of the four different aspects of the external facet of internal auditing. It seems that the practice of internal auditing in terms of relationship with external auditors (co-operation) and (benefiting from external auditors) is more compatible with the framework in the private sector than in the public sector. Meanwhile, the practice of the environmental responsibilities of internal auditing seems to be more advanced in the public sector than in the private sector, as can be seen from the mean scores of the two groups.

Moreover, the results of the multivariate analysis reveal a significant difference in the general practice of internal auditing between the public and private sectors. This difference could be justified by the two

groups having shown significant differences in 18 of the factors

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examining the different aspects of the practice of the internal audit.

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TABLE (9.7) PRACTICE OF INTERNAL AUDIT PUBLIC SECTOR VS PRIVATE SECTOR SENIOR INTERNAL AUDITORS SENIOR INTERNAL AUDITORS MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA

First Component

| First Compo | <u>onent</u> | | | | | |
|------------------------------------|--------------|----------|------------------|----------------------------|----------|-----------|
| Multivariate tests of significance | | | | Post hoc Univariate F-test | | |
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | Sig. of F |
| Hotellings | 0.130 | 3.654 | 0.016 | F 1 | 2.077 | 0.153 |
| Wilks | 0.571 | 3.654 | 0.016 | F2 | 0.039 | 0.854 |
| | | | | F3 | 9.603 | 0.003 |
| a 10 | | | | | | |

Second Component

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 2.476 | 21.462 | 0.000 | | | |
| Wilks | 0.288 | 21.462 | 0.000 | | | |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|-------------|----------|------------------|-------------|----------|------------------|
| F4 | 7.019 | 0.010 | F9 | 21.542 | 0.000 |
| F5 | 55.457 | 0.000 | F10 | 29.057 | 0.000 |
| F6 | 5.722 | 0.019 | F11 | 12.558 | 0.001 |
| F7 | 13.627 | 0.000 | F12 | 1.119 | 0.293 |
| F8 | 31.031 | 0.000 | | | |

Third Component

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 0.975 | 7.504 | 0.000 | | | |
| Wilks | 0.506 | 7.504 | 0.000 | | | |

Post hoc Univariate F-test

| <u>Var.</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|-------------|----------|------------------|-------------|----------|------------------|
| F13 | 9.911 | 0.002 | F18 | 20.570 | 0.000 |
| F14 | 6.619 | 0.012 | F19 | 0.016 | 0.900 |
| F15 | 1.752 | 0.189 | F20 | 4.407 | 0.039 |
| F16 | 1.614 | 0.207 | F21 | 5.427 | 0.022 |
| F17 | 0.718 | 0.399 | F22 | 7.121 | 0.009 |

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Fourth Component

| Multivariate tests of significance | | | | | |
|------------------------------------|--------------|----------|------------------|--|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | | |
| Hotellings | 2.111 | 43.810 | 0.000 | | |
| Wilks | 0.321 | 43.810 | 0.000 | | |

| Post l | hoc Univar | iate F-test | | | |
|-------------|------------|------------------|-------------|----------|------------------|
| <u>Var.</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
| F23 | 114.413 | 0.000 | F25 | 35.399 | 0.000 |
| F24 | 0.088 | 0.767 | F26 | 5.260 | 0.024 |

Overall

| Multivariate tests of significance | | | | | | |
|------------------------------------|--------------|--------|------------------|--|--|--|
| <u>Test Name</u> | <u>Value</u> | | <u>Sig. of F</u> | | | |
| Hotellings | 7.605 | 17.842 | 0.000 | | | |
| Wilks | 0.116 | 17.842 | 0.000 | | | |

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9.3.3 Significant MANOVA difference between the two groups of chief internal auditors

Table 9.8 shows the results of the multivariate analysis performed on the response obtained from the two groups of chief internal auditors from the two sectors. Again, the aim of this analysis is to attest the difference between the practice of internal audit in the public and private sectors as viewed by chief internal auditors. Both the Hotellings and Wilks Lambda tests reveal significant differences between the two sectors in the way the practice internal audit in terms of all four components as well as the general practice of internal auditing.

The results shown in table 9.8 reveal that the multivariate difference found between the sectors regarding the practice of the first component of the framework was a result of the two sectors showing significant differences in the practice of two of the three factors that make up the component. These were the factors concerning the scope of audit work and effectiveness testing, and the practice of both aspects seems to be more compatible with the framework in the private sector than in the public sector. However, the factor regarding the definition and objectives of internal auditing reveals no significant difference between the two sectors.

Similarly, both the Hotellings and Wilks Lambda tests reveal a significant difference in the practice of the operational aspects of internal auditing. The multivariate difference was due to significant differences between the two sectors in the practice of six of the different aspects of the operational component. Three of these factors showed that the practice of internal auditing in the public sector is more compatible with the standard promoted by the conceptual framework than the practice in the private. These were: selecting the auditor; planning the audit; and effectiveness measures. Meanwhile, the practice of preparing the draft report, reporting findings and recommendations, and follow-up is more compatible with the framework in the private than in the public sector. Nonetheless, when it comes to the practice of selecting the auditee, economy and efficiency measures, and field work there seems to be no significant differences between the two sectors.

Furthermore, the table reveals a significant difference between the two sectors in the practice of the organisational component. The cause of this difference is revealed by the results of the post hoc F-test with the two sectors having shown significant differences in the practice of six of the nine different organisational aspects under the third component. The practice of all but one of these seems to be more compatible with the conceptual framework in the public sector than the private sector. The only factor that revealed the opposite was that dealing with quality

assurance. Meanwhile, there was no significant difference between the two sectors in the practice of the following organisational aspects of internal audit: staffing (training programmes); establishing plans and rules; establishing audit department plans; and relationship with auditees (discussing audit objectives).

The results shown in the table 9.8 reveal the two sectors differ significantly in the way they practice the external aspects of internal audit. As can be seen from the results of both multivariate tests, there is significant differences between the two sectors on the external component. Looking at the results of the post hoc F-test it seems that the multivariate difference was due to significant univariate differences in three out of four different aspects of the external component. All three factors that revealed significant differences were related to the relationship with external auditors. The aspects relating to co-operation with external auditors and benefiting from the techniques and knowledge of external auditors show a practice that is more compatible with the framework in the private rather than public sector. The factor regarding relationship with external auditors (general) reveal a better practice of internal auditing in the public sector. However, there seems to be no significant differences between the two sectors in the practice of internal auditing in terms of the environmental responsibilities of internal auditing.

Consequently, the results of the two multivariate tests reveal a significant difference between the two sectors in their general practice of internal audit. This is unsurprising result since the post hoc F-test reveals that the two sectors differ in the practice of 17 out of the 26 different factors that make up the conceptual framework of internal auditing.

TABLE (9.8) PRACTICE OF INTERNAL AUDIT PUBLIC SECTOR VS PRIVATE SECTOR CHIEF INTERNAL AUDITORS CHIEF INTERNAL AUDITORS MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA

First Component

| Multivariate tests of significance | | | | Post hoc Univariate F-test | | | |
|------------------------------------|--------------|-------|------------------|----------------------------|-------------|----------|------------------|
| Test Name | <u>Value</u> | | <u>Sig. of F</u> | | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
| Hotellings | 0.330 | 6.048 | 0.001 | • | F1 | 0.935 | 0.338 |
| Wilks | 0.571 | 6.048 | 0.001 | | F2 | 5.810 | 0.019 |
| | | | | | F3 | 9.280 | 0.004 |

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Second Component

| Multivariate tests of significance | | | | | | |
|------------------------------------|-------|----------|------------------|--|--|--|
| <u>Test Name</u> | Value | <u> </u> | <u>Sig. of F</u> | | | |
| Hotellings | 4.696 | 25.566 | 0.000 | | | |
| Wilks | 0.176 | 25.566 | 0.000 | | | |

Post hoc Univariate F-test

| _ <u>F</u> _ | Sig. of F | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|--------------|------------------------------------|--|--|--|
| 0.715 | 0.401 | F9 | 81.161 | 0.000 |
| 72.144 | 0.000 | F10 | 15.490 | 0.000 |
| 27.003 | 0.000 | F11 | 0.527 | 0.471 |
| 1.168 | 0.284 | F12 | 14.728 | 0.000 |
| 26.875 | 0.000 | | | |
| | 0.715 72.144 27.003 1.168 | 0.7150.40172.1440.00027.0030.0001.1680.284 | 0.715 0.401 F9 72.144 0.000 F10 27.003 0.000 F11 1.168 0.284 F12 | 0.7150.401F981.16172.1440.000F1015.49027.0030.000F110.5271.1680.284F1214.728 |

Third Component

| Multivariate tests of significance | | | | |
|------------------------------------|--------------|------------|------------------|--|
| <u>Test Name</u> | <u>Value</u> | _ <u>F</u> | <u>Sig. of F</u> | |
| Hotellings | 1.364 | 6.549 | 0.000 | |
| Wilks | 0.423 | 6.549 | 0.000 | |

Post hoc Univariate F-test

| Var. | F | Sig. of F | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|------|----------|-----------|-------------|----------|------------------|
| F13 | 12.814 | 0.000 | F18 | 0.352 | 0.556 |
| F14 | 25.704 | 0.000 | F19 | 1.439 | 0.235 |
| F15 | 17.139 | 0.000 | F20 | 16.554 | 0.000 |
| F16 | 9.605 | 0.003 | F21 | 1.770 | 0.189 |
| F17 | 3.529 | 0.065 | F22 | 24.598 | 0.000 |

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Fourth Component

| Multivariate tests of significance | | | | |
|------------------------------------|--------------|----------|------------------|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | |
| Hotellings | 1.337 | 18.055 | 0.000 | |
| Wilks | 0.428 | 18.055 | 0.000 | |

Post hoc Univariate F-test

| <u>Var.</u> | _ <u>F</u> | <u>Sig. of F</u> | <u>Var.</u> | <u> </u> | <u>Sig. of F</u> |
|-------------|------------|------------------|-------------|----------|------------------|
| | 44.535 | - | F25 | 14.829 | 0.000 |
| F24 | 9.081 | 0.004 | F26 | 3.851 | 0.055 |

<u>Overall</u>

| Multivariate tests of significance | | | | |
|------------------------------------|--------------|---------------|------------------|--|
| <u>Test Name</u> | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | |
| Hotellings | 7.792 | 9.590 | 0.000 | |
| Wilks | 0.114 | 9 .590 | 0.000 | |

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9.3.4 Significant MANOVA differences between all respondent from the two sectors

Having studied the difference in the practice of internal auditors between the public and private sectors as viewed by each of the three different levels, in this section the analysis of the difference between the two sectors was assessed through all the respondents in each of the sectors put together. The response of all respondents from the two sectors was subjected to the two multivariate tests of Hotellings and Wilks Lambda as well as to the post hoc univariate F-test. The results of the analysis shown in table 9.9 reveal a significant difference between the two sectors in the practice of the first component of the conceptual framework for internal auditing. The cause of this significant multivariate difference was the two sectors having shown a significantly different practice of the scope of audit work and effectiveness testing. The only factor under the first component that did not show any significant difference was that regarding the definition and objective of internal auditing.

The results of the multivariate test shown in the table reveal a significant difference between the practice of the internal audit in terms of the operational component in the two sectors. A clear insight into the results of the Hotellings and Wilks Lambda test is given by the results of the post hoc F-test. This reveals that the multivariate difference was caused by univariate significant differences between the

two sectors in the practice of seven of the nine different operational aspects of internal audit. The only two factors that did not show any significant difference between the two sectors were those dealing with field work and effectiveness measures. Meanwhile, all but two of the factors that showed significance did so as a result of the practice of internal audit in the private sector being more compatible with the framework than that in the public sector. The other two factors revealed a more compatible practice in the public sector; these were the factors concerning selecting the auditor and planning the audit.

Similarly, the results of both the Hotellings and Wilks Lambda tests reveal a significant difference in the practice of the organisational aspects of internal audit, as proved by the significant difference found on the third component. The post hoc F-test shows that difference was due to the existence of significant differences between the two sectors in the practice of five of the factors that make up the organisational component. Practice within the public sector seems to involve: the organisational status of the internal audit department; staffing (general policies); staffing (recruitment); and relationship with auditees that is more compatible with the framework than that in the private sector. Meanwhile, the practice of quality assurance seems to be more in line with the framework in the private than in the public sector. However, the two sectors seem to have a similar practice of the following organisational aspects of internal auditing: staffing (development);

staffing (training programmes); establishing audit department rules and policies; establishing the internal audit department plans; and the relationship with auditees (discussing audit objective).

Another significant difference between the two sectors was revealed in the way they practice the external aspects of internal auditing. As was revealed by both multivariate tests the two sectors showed a significant difference in the practice of the external component. The results of the post hoc F-test show that the two sectors significantly differ in their practice of three of the four factors examining the different facets of the external component. The practice of internal auditing in terms of the relationship with external auditors both in terms of co-operation and benefiting from the techniques and knowledge of external auditors, seems to be more compatible with the conceptual framework in the private rather than public sector. On the other hand, the external aspect regarding the environmental responsibilities of internal auditing seems to be practised more in compliance with what is promoted by the conceptual framework in the public sector. Meanwhile, the only factor that revealed no significant difference between the practice of internal auditing in the two sectors was that examining the relationship with external auditors (general).

Moreover, the results of the multivariate analysis shown in the table reveal that the general practice of internal auditing in the public sector

differ significantly from the general practice in the private sector. This difference was due to the two sectors showing significant differences in the practice of 17 of the factors that examine the different aspects of the practice of internal auditing.

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TABLE (9.9)

PRACTICE OF INTERNAL AUDIT PUBLIC SECTOR VS PRIVATE SECTOR ALL RESPONDENTS ALL RESPONDENTS MANOVA TESTS OF HOTELLINGS & WILKS LAMBDA

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| <u>First Component</u> | |
|------------------------------------|--|
| Multivariate tests of significance | Post hoc Univariate F-test |
| <u>Test Name Value F Sig. of F</u> | <u>Var. F</u> <u>Sig. of F</u> |
| Hotellings 0.291 25.178 0.000 | F1 0.543 0.462 |
| Wilks 0.775 25.178 0.000 | F2 32.879 0.000 |
| | F3 51.622 0.000 |
| Second Component | |
| Multivariate tests of significance | |
| Test Name Value F Sig. of F | |
| Hotellings 1.966 55.224 0.000 | |
| Wilks 0.338 55.224 0.000 | |
| Post hoc Univariate F-test | |
| Var. <u>F</u> <u>Sig. of F</u> | <u>Var. F Sig. of F</u> |
| F4 5.036 0.026 | F9 194.248 0.000 |
| F5 131.345 0.000 | F10 112.495 0.000 |
| F6 11.918 0.001 | F11 7.660 0.006 |
| F7 3.322 0.069 | F12 0.019 0.889 |
| F8 109.891 0.000 | |
| Third Component | |
| Multivariate tests of significance | |
| Test Name Value F_ Sig. of F | |
| Hotellings 0.520 13.160 0.000 | |
| Wilks 0.658 13.160 0.000 | |
| Post hoc Univariate F-test | |
| <u>Var. F Sig. of F</u> | Var. F_ Sig. of F |
| F13 21.299 0.000 | <u>Var. F Sig. of F</u> F18 1.285 0.258 |
| F14 18.314 0.000 | F19 2.181 0.141 |
| F15 36.632 0.000 | F20 5.394 0.021 |
| F16 1.297 0.256 | |
| F17 1.374 0.242 | F21 0.323 0.637 F22 41.549 0.000 |
| Fourth Component | |

| Tour the component | | | | | |
|------------------------------------|--------------|----------|-----------|--|--|
| Multivariate tests of significance | | | | | |
| Test Name | <u>Value</u> | <u> </u> | Sig. of F | | |
| Hotellings | 1.138 | 73.689 | 0.000 | | |
| Wilks | 0.468 | 73.689 | 0.000 | | |

Post hoc Univariate F-test

| - 00- | noe onita | | | | |
|-------------|-----------|------------------|-------------|--------|------------------|
| <u>Var.</u> | <u> </u> | <u>Sig. of F</u> | <u>Var.</u> | F | 0 |
| F23 | 212.233 | 0.000 | | | <u>Sig. of F</u> |
| F24 | 0.615 | 0.433 | | 75.654 | |
| | | | F26 | 12.651 | 0.000 |

<u>Overall</u>

| Multivariate tests of significance | | | | |
|------------------------------------|--------------|----------|------------------|--|
| Test Name | <u>Value</u> | <u> </u> | <u>Sig. of F</u> | |
| Hotellings | 3.744 | 34.130 | 0.000 | |
| Wilks | 0.211 | 34.130 | 0.000 | |

9.4 The Implications of the Results of the Multivariate Analysis

Looking at the results of the multivariate analysis discussed above there are number of important findings that should be noted. These are:

- (1) There are significant differences between the practice of internal auditing in the public and private sector in terms of all different components of the framework, as well as the general practice of internal auditing. This conclusion was proved in all three cases of analysis. It was proven when the response of each of the three research groups within each sector was compared with the response of the corresponding group in the other sector. It was also the case when the analysis of the response of all respondents in one sector was compared with all respondents in the other sector.
- (2) The significant difference in the practice of aspects falling under the first component of the conceptual framework for internal auditing was caused in all but one of the cases by significant differences between the two sectors in most, if not all, of the factors that make up the component. The only exception was in the case of senior internal auditors where the multivariate difference was caused by univariate difference in only one of the three factors that make the component.

Nonetheless, in all cases the factor regarding effectiveness testing has revealed significant difference between the two sectors. Meanwhile,

the factor regarding the definition and objectives of internal auditing only showed a significant difference between the practice of internal audit in the two sectors in the opinion of the first level of internal auditors. The practice of the remaining element, that examines the scope of audit work, revealed significance in three of the four cases of analysis, with the exception being in the case of senior internal auditors. It should be noted that internal auditing in the private sector is more compatible with the conceptual framework than in the public sector within those two factors that revealed significance in most cases of analysis. Meanwhile, the factor regarding the definition and objective of internal auditing that revealed significance only in the case of the first level of internal auditors reveals more compatibility with the framework in the public sector.

(3) In three of the four cases of analysis the significant difference in the practice of the operational component of the conceptual framework for internal auditing was caused by significant univariate differences in most of the factors concerning the different operational aspects of internal auditing. Four of these factors showed consistent significant differences between the two sectors in all four cases of analysis. These were the operational aspects of: selecting the auditor; preparing the draft report; reporting finding and recommendations; and follow-up.

The practice of three of these four factors seems to be more in accordance with the conceptual framework in the private than public sector. The practice of the process of selecting the auditor seems to be more compatible with the framework in the public sector. Meanwhile, the practice of the process of planning the audit revealed significant differences between the two sectors as viewed by senior internal auditors, chief internal auditors and all respondents. However, the two groups of internal auditors representing the first level of internal auditors did not see such difference. The mean scores showed that the practice of the process of planning the audit is more compatible with the framework in the public than the private sector. On the other hand, the practice of the process of selecting the auditee did not seem to differ significantly between the two sectors in the view of internal auditors and chief internal auditors as well as all respondents. The remaining factors either revealed or did not reveal significance in two of the four cases of analysis. However, it could be said that in general the two sectors differ significantly in the practice of the operational aspects of internal auditing.

(4) The practice of the organisational aspects of internal auditing seem to significantly differ between the public and private sectors. The organisational component was made up of nine factors examining the different organisational aspects. In all four cases of analysis the multivariate difference was due to significant differences in

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most of these factors. There were several factors that consistently revealed significant differences between the practice of internal auditing in the two sectors in all cases of analysis. These were the factors regarding: organisational status; staffing (general policies); and quality assurance. The practice of the first two of these factors seems to be more compatible with the conceptual framework in the public rather than the private sector. Meanwhile, the practice of the third factor revealed exactly the opposite. On the other hand, only the practice of the organisational aspect of staffing (training programmes) consistently showed no significant difference between the two sectors. The other factors that revealed significance in most but not all of the four cases of analysis but the important fact to note here is that the two sectors differ significantly in their overall practice of the organisational aspects of internal auditing.

(5) The two sectors also seem to differ significantly in the practice of the external component of the conceptual framework of internal auditing. This difference was true in the opinion of respondents from each of the three levels of internal auditors as well as all respondents. In all cases of analysis the multivariate difference was caused by significant univariate differences in at least three of the four different factors under the component, though those factors showing significance were not exactly the same in all cases of analysis. Nonetheless, all groups seem to hold the view that the practice of

relationship with external auditors, both in terms of co-operation between internal and external auditors and benefiting from the techniques and knowledge of external auditors, differ significantly between the two sectors. These differences came as a result of the practice of these two factors being more compatible with the conceptual framework in the private than public sector. Meanwhile, the practice of the factor concerning the environmental responsibilities of internal auditing revealed a significant difference between the two sectors in three of the four cases of analysis. This significant difference seems to be caused by the practice of these aspects being more in accordance with the conceptual framework in the public sector. On the other hand, only the practice of the factor regarding the general aspects of the relationship with external auditors revéaled significant differences

(6) All four cases of analysis revealed a significant differences between the general practice of internal auditor in the public and private sector. This was caused in all cases by the two sectors having shown significant differences in most of the factors that examine the different aspects of the practice of internal auditing. There were differences in about 69% of the different aspects of the practice of internal auditing between the two sectors in the view of each of the three levels of internal auditors represented by two research groups from the two sectors, as well as in the view of all respondents.

SUMMARY AND CONCLUSIONS

This chapter addressed itself to examining the practice of internal auditing with the aim of attesting the difference between the standard of practice in the public and private sectors. The analysis used in meeting the objective of the chapter was that of both univariate and multivariate tests. The former tests were used to examine the difference in the practice of the different elements of the conceptual representing the different aspects of the practice of internal auditing. Meanwhile, the latter were performed to examine the difference in practice between the two sectors, but in this case the elements were grouped into four groups corresponding to the four components of the conceptual framework for internal auditing.

Both the parametric T-test and non-parametric Mann-Whitney test, as well as the F-test, revealed significant differences between the two sectors in the practice of most of the different aspects of internal auditing. There was a great deal of consistency between the three tests in the number of the different factors showing significant differences between the two sectors. A great deal of consistency was also noted between the views of the three different levels of internal auditors. These groups did show slightly different views on a few of the different factors. However, this is no surprise because the different groups of internal auditors were bound to have varying views of some aspects of the practice of internal auditing. This was due to how the job a particular group of internal auditors is influenced and linked to a particular aspect of the practice of internal auditing. However, the most important finding is that all three different levels of internal auditor agree that there are significant differences.

between the public and private sectors in the way they practice most of the different aspects of internal auditing. This was further confirmed by the results of the analysis of the response of all respondents put together which revealed significant differences between the two sectors in the practice of about 67% of the factors examining the different aspects of the practice of internal auditing.

Moreover, the two multivariate tests of Hotellings and Wilks Lambda revealed significant differences between the two sectors in their practice of internal auditing in terms of the four components of the conceptual framework as well the general practice of internal auditing. These differences were revealed in all cases of analysis in the view of all three different levels of internal auditors and when all respondents were put together. The post hoc F-test also revealed a great deal of similarity in the four cases of analysis as to the cause of the significant multivariate difference on each of the four components. Still, the most important fact to note is that both multivariate tests revealed significant differences in 100% of the cases.

In the light of these results, this research seems to suggest that practice of internal auditing in organisations in Egypt is influenced by the nature of ownership of the sector the organisation is in. This is apparent from the significant differences detected between the practice of internal auditing in the public and private sectors. The differences were found in most of the different aspects of internal auditing. This meant that there were similarities between the two sectors in the practice of some aspects of internal auditing.
The difference in the practice of internal auditing between the two sectors was found to be caused by one sector having a practice of a particular aspect of internal auditing that is more compatible with the standards promoted by the conceptual framework than the practice in the other sector. The private sector appears to have a more compatible practice in those factors that showed significant differences between the two sectors. The results suggests that the private sectors have a more advanced practice of factors falling under the first component of the conceptual framework; while most of the factors revealing significance and falling under the second component showed a more compatible practice in the private sector. The practice of factors under the third component seems to be varying between the two sectors, with most factors revealing more compatible practice in the public sectors and few revealing more compatible practice in the private sector. On the other hand, all but one of the factors that revealed significance under the fourth and final component showed a more compatible practice of internal auditing in the private sector. It is to be noted that the private sector seems to have a more compatible practice of the factors related to the relationship with external auditors, while the practice of the aspect regarding the environmental responsibilities of internal auditing seems to be more compatible with the conceptual framework in the public rather than the private sector.

Accordingly, the detected significant differences between the two sectors would suggest the rejection of the null hypothesis which proposes that the practice of internal auditing does not vary according to the sector to which a particular organisation belongs. It is apparent from the results both univariate and multivariate analysis that

the practice of internal auditing differs significantly between the public and private

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TABLE (9.10)1PUBLIC SECTORVSPRIVATE SECTORINTERNAL AUDITORSINTERNAL AUDITORSMEAN SCORES

| VARIABLE | PUA | PRA |
|--|--------|--------|
| Definition & Objectives of Internal Auditing | 11.013 | 10.013 |
| Scope of Audit Work | 6.557 | 8.079 |
| Effectiveness Testing | 3.051 | 4.079 |
| Planning the Audit (Selecting the Auditee) | 7.190 | 7.632 |
| Planning the Audit (Selecting the Auditor) | 7.962 | 7.079 |
| Planning the Audit (Setting the Time, Objective & | 14.797 | 14.632 |
| Scope, Preliminary Survey, Audit Programme) | | |
| Field Work | 19.253 | 19.921 |
| Preparing Draft Report | 6.759 | 8.026 |
| Reporting Findings & Recommendations | 5.899 | 8.316 |
| Follow-up | 6.113 | 7.947 |
| Economy & Efficiency Measures | 7.013 | 7.289 |
| Effectiveness Measures | 2.873 | 3.263 |
| Organisational Status | 20.392 | 17.842 |
| Staffing (General Policies) | 7.924 | 7.500 |
| Staffing (Recruitment) | 7.203 | 5.500 |
| Staffing (Development) | 7.734 | 7.947 |
| Staffing (Training Programmes) | 11.696 | 11.763 |
| Establishing Policies & Rules | 21.671 | 18.711 |
| Establishing Audit Department Plans | 10.506 | 8.526 |
| Relationship with Auditees | 14.329 | 14.711 |
| Relationship with Auditees (Discussing Audit | 3.646 | 4.289 |
| Objectives) | | |
| Quality Assurance | 12.430 | 13.842 |
| Relationship with External Auditors (Co-operation) | 12.696 | 15.868 |
| Relationship with External Auditors (General) | 7.241 | 7.737 |
| Relationship with External Auditors (Benefiting | 2.911 | 3.842 |
| from External Auditors) | | |
| Environmental Responsibilities | 8.582 | 7.526 |

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PUA / PRA = Public / Private Sector Internal Auditors

¹ <u>Key</u>

TABLE (9.11)¹ PUBLIC SECTOR SENIOR INTERNAL AUDITORS VS PRIVATE SECTOR SENIOR INTERNAL AUDITORS MEAN SCORES

| VARIABLE | PUM | PRM |
|---|--------|--------|
| Definition & Objectives of Internal Auditing | 11.283 | 11.903 |
| Scope of Audit Work | 7.368 | 7.323 |
| Effectiveness Testing | 3.368 | 4.065 |
| Planning the Audit (Selecting the Auditee) | 7.825 | 8.323 |
| Planning the Audit (Selecting the Auditor) | 8.123 | 6.323 |
| Planning the Audit (Setting the Time, Objective & Scope, Preliminary Survey, Audit Programme) | 15.035 | 13.645 |
| Field Work | 20.035 | 17.548 |
| Preparing Draft Report | 6.965 | 8.129 |
| Reporting Findings & Recommendations | 6.596 | 8.097 |
| Follow-up | 6.877 | 8.194 |
| Economy & Efficiency Measures | 6.596 | 7.323 |
| Effectiveness Measures | 3.123 | 3.419 |
| Organisational Status | 23.667 | 21.677 |
| Staffing (General Policies) | 8.123 | 7.710 |
| Staffing (Recruitment) | 7.544 | 7.129 |
| Staffing (Development) | 8.246 | 8.000 |
| Staffing (Training Programmes) | 11.912 | 11.645 |
| Establishing Policies & Rules | 22.123 | 23.742 |
| Establishing Audit Department Plans | 12.544 | 12.516 |
| Relationship with Auditees | 15.000 | 14.194 |
| Relationship with Auditees (Discussing Audit Objectives) | 3.737 | 3.290 |
| Quality Assurance | 12.263 | 13.710 |
| Relationship with External Auditors (Co-operation) | 11.965 | 16.419 |
| Relationship with External Auditors (General) | 7.895 | 7.839 |
| Relationship with External Auditors (Benefiting from External Auditors) | 2.825 | 4.097 |
| Environmental Responsibilities | 9.596 | 8.290 |

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¹<u>kev</u> PUM / PRM = Public / Private Sector Senior Internal Auditors

TABLE (9.12)¹ PUBLIC SECTOR VS PRIVATE SECTOR CHIEF INTERNAL AUDITORS MEAN SCORES

| VARIABLE | PUC | PRC | | |
|---|--------|---|--|--|
| Definition & Objectives of Internal Auditing | 12.625 | 13.000 | | |
| Scope of Audit Work | 7.781 | 8.556 | | |
| Effectiveness Testing | 3.281 | 4.000 | | |
| Planning the Audit (Selecting the Auditee) | | | | |
| Planning the Audit (Selecting the Auditor) | 8.844 | 5.741 | | |
| Planning the Audit (Setting the Time, Objective & Scope, Preliminary Survey, Audit Programme) | 17.500 | 14.963 | | |
| Field Work | 21.063 | 20.148 | | |
| Preparing Draft Report | 6.906 | 8.704 | | |
| Reporting Findings & Recommendations | 5.750 | 8.444 | | |
| Follow-up | 6.906 | 8.593 | | |
| Economy & Efficiency Measures | 6.844 | 7.037 | | |
| Effectiveness Measures | 3.813 | 2.556 | | |
| Organisational Status | 25.406 | 22.222 8.074 6.222 8.111 12.000 | | |
| Staffing (General Policies) | 9.063 | | | |
| Staffing (Recruitment) | 8.219 | | | |
| Staffing (Development) | 9.000 | | | |
| Staffing (Training Programmes) | 12.938 | | | |
| Establishing Policies & Rules | 23.438 | 23.815 | | |
| Establishing Audit Department Plans | 12.594 | 13.259 | | |
| Relationship with Auditees | 16.000 | 14.185 | | |
| Relationship with Auditees (Discussing Audit Objectives) | 4.031 | 3.704 | | |
| Quality Assurance | 13.875 | 16.741 | | |
| Relationship with External Auditors (Co-operation) | 13.438 | 17.000 | | |
| Relationship with External Auditors (General) | 8.656 | 7.963 | | |
| Relationship with External Auditors (Benefiting | 3.250 | 4.148 | | |
| from External Auditors) | | | | |
| Environmental Responsibilities | 9.563 | 8.111 | | |

1 <u>key</u>

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PUC / PRC = Public / Private Sector Chief Internal Auditors

| <u>TABLE $(9.13)^{1}$</u> | | | | | | | | | | |
|--------------------------------------|---------------------------------|-----------------|--|--|--|--|--|--|--|--|
| PUBLIC SECTOR | PUBLIC SECTOR VS PRIVATE SECTOR | | | | | | | | | |
| ALL RESPONDENTS | | ALL RESPONDENTS | | | | | | | | |
| MEAN SCORES | | | | | | | | | | |

| VARIABLE | PUALL | PRALL |
|--|--------|---------|
| Definition & Objectives of Internal Auditing | 11.411 | 11.583 |
| Scope of Audit Work | 7.065 | 7.969 |
| Effectiveness Testing | 3.202 | 4.052 |
| Planning the Audit (Selecting the Auditee) | 7.672 | 8.042 |
| Planning the Audit (Selecting the Auditor) | 8.815 | 6.458 |
| Planning the Audit (Setting the Time, Objective & | 15.393 | 14.406 |
| Scope, Preliminary Survey, Audit Programme) | | |
| Field Work | 19.863 | 19.219 |
| Preparing Draft Report | 6.857 | 8.250 |
| Reporting Findings & Recommendations | 6.107 | 8.281 |
| Follow-up | 6.524 | 8.208 |
| Economy & Efficiency Measures | 6.857 | 7.229 |
| Effectiveness Measures | 3.137 | 3.115 |
| Organisational Status | 22.458 | 20.313 |
| Staffing (General Policies) | 8.208 | 7.729 |
| Staffing (Recruitment) | 7.512 | 6.229 |
| Staffing (Development) | 8.149 | 8.010 |
| Staffing (Training Programmes) | 12.006 | 11.792 |
| Establishing Policies & Rules | 22.161 | 21.771 |
| Establishing Audit Department Plans | 11.595 | 11.146 |
| Relationship with Auditees | 14.875 | 14.396 |
| Relationship with Auditees (Discussing Audit | 3.750 | 3.802 ' |
| Objectives) | | |
| Quality Assurance | 12.649 | 14.615 |
| Relationship with External Auditors (Co-operation) | 12.589 | 16.365 |
| Relationship with External Auditors (General) | 7.732 | 7.833 |
| Relationship with External Auditors (Benefiting | 2.946 | 4.010 |
| from External Auditors) | | |
| Environmental Responsibilities | 9.113 | 7.938 |

¹<u>kev</u> PUALL/PRALL = Public / Private All Respondents

<u>CHAPTER TEN</u>

10. SUMMARY & CONCLUSIONS

In this chapter an attempt will be made to give a brief summary of the findings and recommendations of this research. The chapter also provides a summary of the limitations of the research and possibilities for future research.

This research followed theoretical and empirical approaches in meeting its objectives. First, it followed the theoretical approach in investigating what the literature has to offer about the nature and objective of auditing in general and internal auditing in particular. This phase helped in setting the terms for research purposes and cleared some of the ambiguity that one faces when reading about the different types of auditing, their nature and objectives. The theoretical approach was also used in attempting to draw a picture of the current state of auditing in Egypt and comparing it with what exists in the UK. But perhaps the most important usage of the theoretical approach in this research was in trying to form a conceptual model for internal auditing. Chapter four of this research was devoted entirely to developing such a conceptual model. The model encompasses all aspects of internal auditing and these aspects seem to form under four main components: conceptual; operational; organisational; and external.

Meanwhile, the empirical approach was followed first in testing the underlying relationships between the different aspects of internal audit. Then this empirical approach was adopted to in testing the three research hypotheses. The empirical phase included data collection through questionnaires. This phase also involved some personal interviews conducted by the researcher with practising internal auditors from all levels in both the public and private sectors. The data collected using both questionnaires was then subjected to different statistical analysis including factor analysis, parametric and non-parametric tests, and univariate and multivariate tests.

10.1 Significant Findings of the Research

This research gains its significance from being one of the few that are devoted to the idea of a conceptual framework for internal auditing. Also, the research is significant because it is the only recent academic research that examines the way internal auditors from all levels perceive the internal audit profession. It also examines the standard of the practice of internal auditing in organisations working in Egypt from both the public and private sectors. This is significant since many of the organisations in Egypt have multinational links, and it is crucial for external auditors to know the standard of the internal audit of the organisation under examination to assess the degree of reliance on the work of the organisation's internal auditors. More significantly, the research helps in providing a picture of the state of internal auditing in Egypt and the way it is perceived by internal auditors. This perception is recorded against the standards of internal audit in more developed countries, as promoted by the

conceptual framework developed in this study. The importance of this lies in the dire need to unify and promote a better standard of the practice of internal auditing around the world in order for it to achieve the full profession status.

This research was one the first of its kind so it was difficult to confirm the validity of any previous findings. However, this could be considered a positive fact about the research in that it opens the door for future research to further investigate matters raised.

The research is also significant in that it studies the relationship between the different aspects of internal auditing and the underlying dimensions that link aspects to each other. To reach this aim the research adopted factor analysis techniques which was not commonly used before in research into internal auditing. The results of the factor analysis shown in chapter five revealed that the perception of internal auditing is made of 21 different factors with each of these factor encompassing some of the different elements of internal auditing. Meanwhile, the different elements of the practice of internal auditing seem to factor together in 26 different factors. However, it should be noted that most of the factors correspond to the factors being divided into more than one factor in the case of the practice. The research also uses both univariate and multivariate approaches to ascertain the difference in perception and practice of internal auditing among internal auditors from different levels and between different sectors. In doing so, the research acknowledges the

multi-dimensional nature of internal auditing and tries to examine the nature of the different facets of the profession.

The results of this research confirm the significant differences in the perception of the different aspects of the internal audit profession between internal auditors from the two sectors. This seems to suggest that the nature of the ownership of a particular organisation has an effect on the way internal auditors working within it perceive their profession. This, in turn, could be attributed to various factors such as: the qualification of internal auditors and the training they received; the working conditions within the sector and the remuneration provided; the culture and politics within the organisation; and more important is the effect of organisational versus professional commitment. However, several aspects revealed no significant differences in perception between internal auditors from the two sectors.

Similarly, the results of both the univariate and multivariate analysis shown in the research revealed that the perception of internal auditing varies according to the level of internal auditors. Respondents from the three levels of internal auditors taking part in the research, both in the public and private sectors, showed that they have a significantly different perception of most aspects of internal auditing as well the perception of the profession in general.

Nevertheless, the different levels of internal auditors seem to have a similar perception of some aspects of internal auditing. Auditors from the different

groups have shown that they consistently have similar views of the internal audit aspects presented by factors examining: the scope of internal work; staffing, training and development; and the environmental responsibilities of internal auditing.

With regards to the mean scores recorded by respondents from the different groups, it appears that perception of internal auditing seems to get significantly higher as the level of internal auditors gets higher. It is revealed that the perception of the different aspects of internal auditing is more compatible with the conceptual framework among chief internal auditors than senior internal auditors, and more compatible among senior internal auditors than internal auditors. This result was confirmed in both the public and private sectors.

In addition, the results of the MANOVA tests, based on analysing the response in terms of grouping the different elements in four sets representing the four components of the framework, confirm the consistency in the significantly different perception between the three levels of internal auditors in both sectors. The analysis also consistently reveals significant differences between the three levels of auditors in the overáll perception of the internal audit profession.

However, it would appear from the mean scores recorded by respondents from the three levels that, in general, all respondents have a positive perception of

the different aspects of internal auditing. The mean scores in all of the aspects were well above average and in some cases there were really high scores.

The research also investigated the standards of the practice of internal auditing in organisations working in Egypt. The research studied the difference in the practice of internal auditing between organisations from the public and private sectors. The results of the univariate analysis shown in chapter nine reveals that there are significant differences between the two sectors in their practice of most of the different aspects of internal auditing. The Mann-Whitney test, T-test, and F-test all revealed significant differences between the public and private sectors in the practice of at least 66% of the different aspects of internal auditing.

Nonetheless, there were several elements that revealed no consistent significant differences between the practice of internal auditing in the public and private sectors. These were the elements regarding: the definition and objective of internal auditing; field work; effectiveness measures; staffing (development); staffing (training programmes); and establishing internal audit department plans.

The results of the multivariate analysis also confirmed the significant differences in the practice of internal auditing between the public and private sectors. The multivariate tests examined the differences in the practice of internal auditing by grouping the different aspects of practice under four main

components corresponding to those used in the case of the perception questionnaire. The tests revealed significant differences in practice between the two sectors in terms of all four component, but perhaps more important was the finding that the two sectors differ significantly in their general practice of internal auditing.

Significantly, the differences in practice between the two sectors seems to be caused, in general, by the private sectors having a more compatible practice with the standards promoted by the conceptual framework in factors falling under three of the four components. Meanwhile, the practice of most factors under the organisational component seems to be more compatible with the framework in the public sector than the private sector, with the odd exception in the case of the factor concerning quality assurance. The better practice of the organisational component in the public sector seems to stem from the fact that internal audit departments in public sector organisations are more well established than those in organisations from the private sector.

In almost all public sector organisations internal audit enjoy the privilege of having a separate department, while some organisation in the public sector have the internal function within the finance and accounting department. This was always bound to affect the practice of some of the organisational aspects of internal auditing, especially when regarding aspects such as organisational status and the general policies for staffing the internal auditing department. No doubt, such aspects will be practised better when there are clear rules and

guidelines which are more evident in the public sector to the degree that they could become bureaucratic at times. Also, it is important to note that both sectors seem to have similar practice when it comes to aspects regarding the training and development of their internal audit staff. There seem to be a great deal of improvement in the practice of these aspects in both sectors.

10.2 Constraints to the Implementation of Modern Internal Auditing in Egypt

Having studied the perception and practice of internal auditing in the public and private sectors in Egypt, one realises that both sectors face some strains in performing auditing with its comprehensive concept. These strains are:

10.2.1 Lack of independence

Independence has two aspects - one is the real independence, the other is the appearance of independence. Auditors have to acquire both aspects in order to perform their job efficiently and effectively. The case for Egyptian auditors is that even if they satisfy the real independence aspect, their appearance does not always match the concept of independence.

10.2.2 Shortage of qualified and well trained staff

The shortage of sufficient qualified and competent staff gives rise to one of the most serious limitations an internal audit department can face. Lack of trained and multi-disciplinary staff has become a severe difficulty since internal audit departments started to assume

performance audit duties in addition to financial auditing. The broader scope of the performance audit has required integration of various specialised skills including accountants, engineers, economists, statisticians, lawyers and other specialists. Most internal audit departments are staffed only with accountants, and lack auditors with a solid background in these other disciplines. The potential for computers in the audited entities is enormous and the need to prepare for computer auditing has become urgent and challenging. Computers are used extensively in most private organisations, government departments, public authorities, public organisations, and public companies and banks. Computer auditing requires highly professional capabilities, however such capabilities are not available in many internal audit departments.

Low salaries and poor terms of services offered, especially in the public sector, also contribute to the personnel problem. This results in a high staff turnover, when auditors move to the private sector for higher pay and better working conditions.

10.2.3 Scope of audit

There is agreement that auditing should have full scope, however in practice there might be some restrictions which prevent some internal audit departments from having a full scope audit. The audit carried out by some audit departments, particularly in the public sector,

concentrate more on financial auditing and compliance with laws and regulations. Audit is yet to be performed in its broader scope, though the initiative taken by some organisations and by authorities to promote wider scope of audit represents an encouraging starting point for ⁻ performing such audits.

10.2.4 Lack of professional standards

Egyptian internal auditors do not enjoy the advantages enjoyed by their counterparts in other countries who have professional standards and guidelines. There are no clear standards for the professional practice of internal auditing in Egypt and, therefore, auditors have to rely only on their personal judgement. This results in the existence of great variance from one group of auditors to another. Something ought to be done to clarify this situation and limit this variance but the personal judgement of auditors will always exist as an important part of the audit process.

10.2.5 Insufficient funds allocation for auditing

The funds available for internal audit departments, especially those in the public sector, do not allow the auditors to be paid a salary encouraging enough to stay in their jobs and perform their work properly. Also, limited financial resources often put some strains on the scope of audit.

10.2.6 Inadequate available information

In almost all public, and some private, organisations only financial information is available. The sort of information necessary for carrying out the broader scope audit is virtually non-existent. This happens because the entities themselves have not got a good system of management control which promotes better organisation and availability of information.

10.2.7 Lack of performance indicators

One of the difficulties faced by auditors when performing the broader scope audit is the lack of performance indicators needed to evaluate the level of economy and efficiency in using the unit's resources, and the effectiveness in achieving the unit's goals and objectives.

10.2.8 Following-up audit recommendation

To have proper management of the organisations' resources, and to guarantee effective control over such resources, audit observations and recommendations should be monitored and followed-up to ensure their implementation. The absence of this activity can render control over resources ineffective, and poses a limiting factor to the work of internal audit departments.

10.3 Recommendations of the Research

The study indicates that the perception of the internal audit as held by internal auditors from all levels in both sectors in Egypt is generally positive, but it is also apparent that there is a degree of confusion and inconsistency about some aspects of internal auditing. This is mainly due to the non-existence of a professional body that looks after the interests of the internal audit profession in Egypt. This meant that there was no sense of uniformity in the standards of internal auditing. Although Egyptian internal auditors showed positive perception of many aspects of internal auditing, in Egypt there is still ambiguity regarding the objectives, scope and nature of internal audit. Internal auditing in Egypt needs clearly outlined statements of responsibilities and objectives, because it is clear from the results of this analysis that internal auditors in Egypt have a good perception of their profession and showed a positive

Therefore, the findings of this research would seem to suggest that whatever the differences revealed between different levels of internal auditors, in the way they perceive the different aspects of internal audit, in general most respondents have shown positive perception. It is also apparent from the results of this research that the perception of internal auditing gets higher as the level of internal auditors gets higher. Higher perception also seems to be somehow connected to the qualifications, experience and working conditions of internal auditors. This seems to suggest that internal auditors in Egypt are ready to comply with standards of internal auditing practised in developed

countries if they are given the support that could be provided by a professional body.

Another finding of this research was that not all organisations have a separate internal audit department and the researcher recommends the establishment of internal audit departments within all organisations. Perhaps the public sector could take the lead by ensuring that all its organisations have a separate internal audit department. The existence of separate internal department is not an aim in itself but a mean to achieving a better internal audit function. This could be further enforced by clearly stating the role and responsibility of internal audit departments. This role should not only cover financial matters but should be extended to cover all aspects of modern internal auditing. Also, the role of internal auditing should be clearly communicated to all members of the organisation. The internal audit department's independence could also be strengthened by ensuring that it reports to the highest post within the organisation.

One major problem facing the practice of internal auditing in Egypt is the lack of well qualified and trained staff, and this problem is more evident in the public sector. This problem is caused by poor salaries which do not help attract well qualified staff, and in the case of the public sector experienced and well qualified could not be retained because they leave for better salaries elsewhere. Most of internal audit staff recruited come from financial

backgrounds. It is not common practice for internal audit department to recruit members of staff with other knowledge and disciplines.

Furthermore, another obstacle to the practice of modern internal auditing seems to be the poor quality of training provided to internal auditors. There is still great emphasis on the financial aspects of auditing. Also, training programmes are not available to all practitioners and, when they are available, they are mainly internal programmes with very few organisations sending their internal auditors to external training programmes. There seems to be a lack of external training programmes that are specifically devoted to internal auditing in its modern concept. However, some organisations send their auditors to training programmes in developed countries but this is a privilege which is usually strictly enjoyed by the very senior members of staff. Therefore, it is imperative that internal auditors should be provided with regular training programmes that cover all the techniques and concepts of modern internal auditing. Also, it is essential that universities in Egypt review the way internal auditing is taught at the undergraduate level. Currently, internal auditing is merely a topic covered among many other topics and only the financial aspects of internal auditing is studied. This needs to be changed to allow internal auditing to be studied more in depth.

From the interviews the researcher held with chief internal auditors in the public sector, it is apparent that the relationship between them and external auditors is not ideal. Most chief internal auditors seem to think that auditors

from the CAO are only interested in reporting negative findings. Also, the current arrangement of having auditors from the CAO stationed at the organisation they audit does not seem to yield the best results. These appear to result in either the auditors becoming too friendly with members of the organisation, or in the relationship between the two groups of auditors becoming too tense to allow a co-operative working relationship. It is, therefore, recommended that those external auditors should not be stationed in the organisation under concern, and if they are stationed there they must be rotated regularly.

It could be reasonably concluded that Egyptian internal auditors are not provided with specific and clearly stated guidelines for the practice of modern internal auditing. This fact seems to suggest that clearly stated guidelines should be made available to all internal auditors working in Egypt, so that there will be a degree of consistency as to the responsibility and role of internal auditing and every internal auditor will know what is expected from him/her.

Also, modern internal auditing could not be well practised unless there is a system that provides sound information. This system is vital for a good practice of internal auditing and internal auditors should be provided with timely, accurate information. This information should not only be financial; all types of information should be available in order for internal auditors to be able to perform the efficiency, effectiveness, and equity facets of their work. This could also be helped by developing good performance criteria to be used by

internal auditors, and a proper documentation system within the organisation is essential.

Finally, it is very important that internal auditors should be motivated to perform internal auditing in its wider scope. Motivating internal auditors should not only be done through offering them better salaries and working conditions, but also by providing them with the support they desperately need. This support should be in the form of: clearly stated objectives and guidelines; better organisational status supported by direct communication between the chief internal auditors and the board of directors; better training and development programmes; and most importantly a professional body that looks after the interests of internal auditing.

10.4 Limitations of the Research

As in the case of any other research, the first limitation of this research is that it could not claim with absolute certainty that the results represent totally accurate picture of what is actual going on in real life. Another limitation is that there is nothing in the literature to give an indication of what should be expected from this research, thus the research does not claim to confirm or deny any proven fact.

The research subjects were randomly selected from internal auditors working in organisations located mainly in Cairo. Therefore, one could not claim that they are absolutely representative of all internal auditors in Egypt. However, it is worth noting that about a third of Egypt's population resides in Cairo, and that it is the industrial and financial capital of Egypt with almost all organisations working in Egypt having offices in Cairo. Thus, it was hoped that the sample reflect to great extent the situation in Egyptian economy in general.

This research used the questionnaire instrument in collecting the necessary data and therefore is bound to suffer from limitations associated with questionnaires as a collection method. The main criticism of questionnaires is that they may not produce correct and uniform interpretation by respondents. Another criticism is that respondents may not always answer truthfully. However, all efforts were made when designing the two questionnaires to avoid these deficiencies.

10.5 Suggestion for Further Research

This research only restricted itself to the views of internal auditors from all levels. Further research is needed to examine the views of other groups such as external auditors, auditee management, board of directors, and other users of audit services.

The conceptual model developed in this research only represents a starting point - more research is needed to investigate the possibility of developing a universally accepted framework. The model could also be used to examine the perception and practice of internal auditing in other developing and

developed countries. More research is needed to examine the applicability of a conceptual framework for internal audit in developing countries. There is also a great need for more comparative studies of the perception and practice of internal auditing between different developed and developing countries.

Further research is needed to investigate the obstacles to introducing modern internal auditing in developing countries and ways to solve any difficulties that might hinder the practice of internal auditing in its wider scope. Also, further research is needed to examine the cause of the significance differences between different groups of internal auditors in the way they perceive their profession.

APPENDIX A1

من فضلك ضع علامة (×) على المربع الذي يمثل رأيك مع مراعا، أن.

- (۱) تعنی لا أوافق بشده (۲) تعنی لا أوافق (۳) تعنی لا أدری (٤) تعنی أوافق
 - (٥) تعنى أوافق بشده

من فضلك لاحظ أن المقصود بتعبير " هيئة المراجعد " هو (هيئه من المديرين بمنظمة مسئوليتهم المحدده هى مراجعه التقرير المالى السنوى قبل تقديمه لمجلس الادارة . هذه الهيئه تعمل كهمزه وصل بين المراجعه ومجلس الادارة وانشطتها تشمل مناقشه ترشيح المراجع ، النطاق العام للمراجعه ، نتائج المراجعه ، أساليب الرقابه الداخليه والمعلومات الماليه المعده للنشر) .

| 1 | I | 1 | 1 | 1 | |
|--|---|--------|--|---|---|
| العبارات التاليه توجعة، رأيك في ما يجب أن تحوى عليه مهنه المراجعه الحاخليه | | | | • | |
| بصرف النظر عن ما يطبق في منظمتك . | | | | | |
| هن فضلك ضع علامه (x) على المربع الذي يمثل رايك | | | | | |
| أمور تتعلق بالمغاهيم : | | | | | |
| * المراجعه الداخليه عمليه مستقله تقوم بأختبار وتقييم أنشطه المنظمه . | | | T T T T T | 6 | • |
| * الأدارة يجب أن تكون المستفيد الوحيد من خدمات المراجعة الداخلية . | | , , | ۰ ۳ | 5 | • |
| * يجب أن تكون المراجعة الداخلية خدمة لجمنيع أعضاء المنظمة . | | , v | | £ | |
| * يجب أن لا تشمل خدمات المراجعه تقديم النصح لأعضاء المنظمه . | | ۲ ۲ | , , | £ | |
| * خدمة المراجعة الداخلية يكن توفيرها فقط عن طريق التوصيات الرسمية . | | Y | | £ | |
| * يجب ترويج الرقابه الفعاله بأية تكلفه . | | Y | | £ | |
| * إختبار الجوانب الماليه هي المسئوليه الوحيده للمراجعه الداخليه . | • | ۲ | ٣ | ٤ | |
| * المراجعه الداخليه يجب أن تختبر الكفاء والإقتصاديه في اداء العمليه . | 、 | ۲ | ۳ | ٤ | ĺ |
| * اختبار الفاعليه في تحقيق أهداف المنظمه يجب أن لايمثل جزء من مسئوليه المراجعه | | | | | |
| الداخليه . | 1 | ۲ | ٣ | ٤ | |
| * الإقتصاديه تعنى تقليل تكلفه الحصول على المدخلات والموارد . | 1 | ۲ | ٣ | ٤ | |
| * الكفاء تعنى تحقيق أحسن معدل بين المخرجات المنتجه والمدخلات المستخدمه . | ١ | ۲ | r r r | ٤ | |
| * الفاعليه تعنى النجاح في مقابله الأهداف المخططه . | 1 | ۲ | ٣ | ٤ | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| | | | | | | مغاهيم تطبيقه : |
|---|---|---|-----|-----------------------|----------|--|
| | | | | | | * يجب إختبار الجهد التي سيتم مراجعتها بناءاً على خطه منظمه تسمع أيضاً بأداء |
| | ٥ | ٤ | ٣ | ۲ | 1 | أيه أعمال مراجعه طارئه . |
| | | | | | | * إختيار الجهد التي سيتم مراجعتها يجب أن يتم على أساس مقابله الإحتياجات |
| ÷ | ٥ | ٤ | ٣ | ۲ | \ \ | الطارئه فقط . |
| | 0 | ٤ | ٣ | T T | \ \ | * لايشترط أن يكون لدى المراجع خبره ومعرفه بالعمليه التي سيقوم بمراجعتها . |
| | 0 | ٤ | ٣ | ۲ | 1 | * يجب أن توضح موازنه زمنيه لكل عمليه مراجعه داخليه . |
| | ٥ | ٤ | ۳ ا | 1 7 | 1 1 | * يجب أن يحدد هدف ونطاق كل عمليه مراجعه داخليه قبل بدء العمل . |
| | ٥ | ٤ | ۳ | ۲ | \ | * يجب إجراء فحوص مبدئيه للعمليات قبل بدء أعمال المراجعه الداخليه . |
| | ٥ | ٤ | ۳ | ۲ ۲ | \ | * يجب إعداد برنامج مراجعه لكل عمليه مراجعه داخليه . |
| | ٥ | ٤ | ٣ | ۲ | \ | * عند بدايه عمليه المراجعه الداخليه يجب وصف وتقييم أساليب المراقبه الموجوده . |
| | | | | | | * اختبارات المراجعه الداخليه يجب أن تشمل إجتبار كفاء وفاعليه أساليب الرقابه |
| | ٥ | ٤ | ۳ | ۲ | 1 | الموجوده ومدى الألتزام بأساليب الرقابه . |
| | ٥ | ٤ | ٣ | ۲ | 1 | * في نهاية مرحله الإختبارات يجب الوصول الى نتيجه مدى فاعليه أساليب الرقابه . |
| | ٥ | ٤ | ٣ | ۲ | 1 | * يجب أن تكون هناك سياسه محدده لجمع وحفظ أوراق عمل المراجعه الداخليه . |
| | 0 | ٤ | ٣ | ۲ | ١ | * ليس هناك حاجه لفحص نتائج تقرير المراجعه الداخليه مع أوراق العمل . |
| | 0 | ٤ | ۳ | ۲ | ١ | * يجب أن يكون هناك ملف لكل عمليه مراجعه داخليه . |
| | 0 | ٤ | ۳ | ۲ | ١ | * يجب أن يشمل تقرير المراجعه النتائج الايجابيه كما يحوى النتائج السلبيه . |
| | 0 | ٤ | ٣ | ۲ | ١ | * كتابه تقرير المراجعه الداخليه عمليه مستمره يجب أن تبدأ مع بدء أعمال المراجعه . |
| | 0 | ٤ | ٣ | ۲ | 1 | * مهمه المراجعه الداخليه يجب أن تنتهى، بأصدار التقرير الرسمي للمراجعه . |
| | | | | 4 4 7 7 7 | | |

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| * يجب إجراء عمليه متابعه التقرير لضمان تطبيق التوصيات . |) \ | ۲ | ۳. | ٤ | ٥ | |
|--|------------|---|--------|---|---|---|
| * يجب مقارنه نتائج العمليات مع نتائج السنوات السابقه ومن عمليات ومنظمات | ļ | | | | | |
| عائله | 1 | ۲ | ٣ | ٤ | ٥ | |
| مغاهيم تنظيميه : | | | | | | |
| * يجب أن تكون المراجعه الداخليه قسم بذاته لايتبع أى قسم آخر . | • | ۲ | ۳ ۳ | ٤ | 0 | |
| * المراجعه الداخليه يجب أن تبلغ تقاريرها مباشرة لمجلس الأدارة . | • | ۲ | ٣ | ٤ | 0 | ļ |
| * يجب أن يتم تحديد نطاق ومسئولية وسلطه المراجعه الداخليه بوضوح وأبلاغها لجميع | | | | | | |
| أعضاء المنظمه . | \ | ۲ | ٣ | ٤ | 0 | |
| * يجب أن يكون رئيس قسم المراجعه الداخليه على إتصال مباشر بمجلس الأدارة . | • | ۲ | ٣ | ٤ | 0 | : |
| * قرار تعيين وإنهاء خدمة رئيس قسم المراجعه الداخليه يجب أن يكون من إختصاص | | | | | | |
| مجلس الإدارة فقط . | • | ۲ | ٣ | ٤ | 0 | |
| * يجب أن يكون جميع المراجعين الداخليين أعضاء في جمعيه المراجعين الداخليين . | 1 | ۲ | ٣ | ٤ | 0 | |
| * المحاسبه هي العلم الوحيد الذي يجب على المراجعين معرفته . | | ۲ | ٣ | ٤ | 0 | |
| * يمكن إختيار المراجعين الداخليين من بين هؤلاء الذين لديهم معرفه في الهندسه ، | | | | | | |
| -11 r <11 la | 、 | ۲ | ۳ | ٤ | 0 | |
| * لايوجد حاجة لأرسال المراجعين الداخليين الى برامج تدريبيه وتعليميد . | | ۲ | ٣ | ٤ | 0 | |
| * يجب أن تشمل برامج التدريب للمراجعيين الداخلين برامج داخل المنظمه وبرامج | | | | | | |
| رسميه خارج المنظمه . | | ۲ | ٣ | ٤ | 0 | |
| * يجب أن يتم تقييم أداء المراجع على الأقل مره سنويا . | • | Y | ٣ | ٤ | 0 | |
| * لايوجد مانع في أن يقوم المراجع الذي إنضم حديثاً لقسم المراجعه بمراجعه العمليه أز | | | | | | |
| * لايوجد حاجة لأرسال المراجعين الداخليين الى برامج تدريبيه وتعليميد . * يجب أن تشمل برامج التدريب للمراجعيين الداخليين برامج داخل المنظمه وبرامج رسميه خارج المنظمه . * يجب أن يتم تقييم أداء المراجع على الأقل مره سنويا . * لايوجد مانع فى أن يقوم المراجع الذى إنضم حديثاً لقسم المراجعه بمراجعه العمليه أق الإدارة التى تركها لينضم لقسم المراجعه . | 、 | ۲ | ٣ | ٤ | 0 | |
| | I | | | | 1 | |

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| | 1 | 1 | 1 | ı | ı | |
|--|----------|----|--------|---|---|---|
| * يجب متابعه ورقابه أعمال المراجعه الداخليه بصغه مستمره لضمان توافقها مع | | | | | . | |
| معايير وسياسات وبرامج المراجعه . | 1 | ۲. | ۳ | ٤ | 0 | |
| * يجب تقييم جوده أعمال قسم المراجعه الداخليه على الأقل مره كل ثلاث سنوات . | 1 | ۲ | ۳ ۳ | ٤ | 0 | |
| * يجب أن يكون هناك تقييم داخلى مستمر لجوده أعمال قسم المراجعه الداخليه . | 1 | ۲ | ٣ | ٤ | 0 | |
| * لايوجد حاجه لإجراء تقييم بواسطه جهه خارجيه لجوده أعمال قسم المراجعه | | | | | | |
| الداخليه. | 1 | ۲ | ٣ | ٤ | • | , |
| | | | | | | |
| مغاهیم تتعلق بامور خارجیه : | | | | | | |
| * الإحتفاظ بعلاقه جيده مع المراجعين الخارجيين ليس ذو أهميه للمراجعين الداخليين. | 1 | ۲ | ۳ | ٤ | ٥ | 1 |
| * لايجب على المراجعين الداخليين مناقشه خطه أعمالهم مع المراجعين الخارجيين . | 1 | ۲ | ٣ | ٤ | 0 | |
| * يجب إرسال نسخ من تقارير المراجعه الداخليه الى المراجعين الخارجيين بأستمرار . | \ | ۲ | ۲ ۳ | ٤ | 0 | |
| * يمكن للمراجعين الداخليين الإستفاده من أساليب وتقنيات المراجعين الخارجيين . | \ | ۲ | ٣ | ٤ | 0 | |
| * يجب أن يكون المراجعين الخارجيين على قدرة على الأعتماد على أعمال المراجعين | | | | | | |
| | \ | ۲ | ٣ | ٤ | 0 | |
| * لايوجد مجال للتماون بين المراجعين الداخليين والحارجيين . | ١, | ۲ | ٣ | ٤ | ٥ | |
| * لايوجد دور يمكن للمراجعه الداخليه تأديتة تجاه البينه . | 1 | ۲ | ٣ | ٤ | ٥ | |
| * يجب على المراجعة الداخلية إختبار السياسات الداخلية للمنظمة لضمان وجود | | | | | | |
| الداخعليين في اداء اعمالهم . * لايوجد مجال للتماون بين المراجعين الداخليين والخارجيين . * لايوجد دور يحكن للعراجعد الداخليه تأديتة تجاه البيئه . * يجب على المراجعه الداخليه إختبار السياسات الداخليه للمنظمه لصمان وجود سياسه للمحافظه على البوئه وأن هذه السياسه يتم تطبيتها . | ١ | ۲ | ٣ | ٤ | ٥ | |
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۲ - ما دجم المنظمه التي تعمل بغا من نادية عدد العاملين

الموازنه لغذا العام .

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۸ – اس معلومات اخرس زدب اضافتها

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إذا كنت ترغب في المشاركه في أي مقابله قد يحتاج اليها البحث من فضلك أكتب أسمك وعنوان المراسله . مع العلم أن جميع الأسماء والعناوين سوف تعامل بسريه تامه ، ولن يتم نقلها الى أية جهة أخرى أو حفظه في أية ملغات ولن يتم نشرها بأى صوره من إلصور . ۰, الأسم : العنوان : رقم التليفون :

شكر الاخذك جزء من وقتك لتكمله هذا الاستبيان

APPENDIX A2

من فضلك ضع علامة (×) على المربع الذي يمثل رأيك مع مراعا، أن.

- (۱) تعنی لا أوافق بشده (۲) تعنی لا أوافق (۳) تعنی لا أدری (2) تعنی أوافق
 - (٥) تعنى أوافق بشده

من فضلك لاحظ أن المقصود بتعبير " هيئة المراجعه " هو (هيئه من المديرين بمنظمة مسئوليتهم المحدده هى مراجعه التقرير المالى السنوى قبل تقديمه لمجلس الادارة . هذه الهيئه تعمل كهمزه وصل بين المراجعه ومجلس الادارة وانشطتها تشمل مناقشه ترشيح المراجع ، النطاق العام للمراجعه ، نتائج المراجعه ، أساليب الرقابه الداخليه والملومات الماليه المعده للنشر) .

| | | | | [| العبارات التاليه توصف تطبيق المراجعه الداخليه في المنظمه التي تعمل بنها : |
|---|-------------|---|------------------|----------|---|
| | | | | | من فضلك ضع علامه (×) على المربع الذي يمثل رايك |
| | | | | | المراجعه الداخليه المطبقه في منظمتك : |
| | | } | | | * المراجعه الداخليه تؤدى عملها من خلال اختبار وتقييم أساليب ونظم الرقابه الداخليه |
| 0 | ٤ | ٣ | Y | 1 | الموجوده بالمنظمه . |
| | ٤ | ٣ | ۲ | 1 | * قسم المراجعه الداخليه يوفر خدمات لجميع أعضاء المنظمه . |
| 0 | ٤ | ٣ | 7 7 7 7 | 1 | * يتم تقديم خدمات المراجعه الداخليه عبر التوصيات الرسميه فقط . |
| 0 | ٤ | ٣ | ۲ | 1 | * الجوانب الماليه فقط هي التي يتم تغطيتها بأختبارات المراجعه الداخليه . |
| 0 | ٤ | ۳ | ۲ | 1 | * يتم اختبار اقتصاديه وكفا 4 العمليات بواسطة المراجعه الداخليه . |
| | | | | | * اختبار الفاعليه في تحقيق أهداف المنظمه لايمثل جزء من واجبات المراجعه |
| • | ٤ ٤ ٤ | ٣ | ۲ | 1 | الداخليه. |
| • | ٤ | ٣ | ۲ | \ | * اختبار الجهه التي سيتم مراجعتها يتم على أساس خطه دوريه . |
| • | ٤ | ٣ | ۲ | • | * اختيار الجهه التي يتم مراجعتها يتم على أساس موافه الاحتياجات الطارئه فقط . |
| 0 | ٤ | ٣ | ۲ | \ | * وجود معرفه وخبره لدى المراجع بالعمليه التي سيتم مراجعتها هي الأساس الرئيسي |
| 0 | £ | ٣ | ۲ ا | 1 | الذي عليه يتم اختيار المراجع الداخلي للقيام بعمليه المراجعه . |
| 0 | ٤ | ٣ | ۲ | ١ | * لايشترط أن يكون لدى المراجع خبره ومعرفه بالعمليه التي سيتم مراجعتها . |
| 0 | ٤ | ۳ | ۲ | ١ | * لايوجد حد زمنى للوقت الذى يجب أن تستغرقه كل عمليه مراجعه داخليه . |
| 0 | ٤ | ۳ | ۲ | ١ | * يتم تحديد هدف ونطاق كل عمليه مراجعه داخليه قبلا بدء العمل الميداني . |
| 0 | ٤ | ٣ | ۲ | 1 | * لايتم إجراء فحرص مبدئيه للعمليات قبل بدء أعمال المراجعه الداخليه . |
| 0 | ٤ | ٣ | ۲ | ١, | * يتم اعداد برنامج مراجعه لكل عمليه مراجعه داخليه . |
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| | 1 | 1 | 1 | 1 | 1 |
|---|----------|---|--------------------|---|---|
| * العمل الميداني للمراجعه الداخليه يبدأ بوصف أساليب الرقابه الداخلية الموجوده | | | | | |
| بالنظمه . | \ | ۲ | ٣ | ٤ | 0 |
| * أساليب الرقابه الموجوده يتم اختبارها لمعرفه الاخطار المرافقه لها . | 1 | ۲ | ٣ | ٤ | 0 |
| * يتم اعداد تقرير مبدئي للمراجعه بواسطه فريق المراجعه الذي يقوم بعمليه المراجعه | | | | | |
| الداخليد . | 1 | ۲ | ٣ | ٤ | 0 |
| * يتم مقارنه نتائج التقرير مع أوراق عمل المراجعه الداخليه التي يتم جمعها أثناء | | | | | |
| العمل الميداني . | \ | ۲ | ٣ | ٤ | 0 |
| * لايوجد سياسيه محدده لجمع وحفظ أوراق عمل المراجعه الداخليه . | ١ | ۲ | ٣ | ٤ | 0 |
| * بتم جمع أوراق العمل أثناء سير أعمال المراجعه الداخليد . | 1 | ۲ | ٣ | ٤ | 0 |
| * يتم حفظ ملف مراجعه لكل عمليه مراجعه داخليه . | 1 | ۲ | ٣ | ٤ | 0 |
| * يتم مراجعه واعتماد كل تقارير المراجعه بواسطه رئيس قسم المراجعه الداخليه . | 1 | ۲ | ٣ | ٤ | 0 |
| * تقرير المراجعه الداخليه يحتوى على النتائج السلبيه فقط . | 、 | ۲ | ٣ | ٤ | 0 |
| * مهمه المراجعه الداخليه تنتهى باصدار التقرير الرسمى للمراجعه الداخليه . | 1 | ۲ | ٣ | ٤ | 0 |
| * يتم اجراء عمليه متابعه لضمان تطبيق التوصيات المصدره بتقرير المراجعه الداخليه. | ١ | ۲ | ٣ | ٤ | 0 |
| * يتم قياس الاقتصاديه بمقارنه نتائج هذا العام مع النتائج من اعوام سابقه . | 1 | ۲ | ٣ | ٤ | ٥ |
| * * لايتم مقارنه نتائج العمليات مع النتائج من منظمات مماثله في النشاط . | 1 | ۲ | ٣ | ٤ | 0 |
| * مهمه المراجعه الداخليه تشمل التأكد من وجود أهداف واضحه للمنظمه . | • | ۲ | ٣ | ٤ | 0 |
| | | | | | |
| امور تتعلق بالمنظمه | | | * * * * * * | | |
| * رئيس قسم المراجعه الداخليه يبلغ تقاريره مباشره لمجلس الأدارة . | | Y | ~ | 4 | |
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|--|---|---|-------------|---|-----|
| * المراجعه الداخليه قسم منفصل بذاته ولايتبع أى قسم آخر . | ١ | ۲ | ۳ ۳ ۳ | ٤ | 0 |
| * تم أصدار سياسه توضح نطاق مسئولية وسلطه المراجعه الداخليه . | ١ | ۲ | ٣ | ٤ | ٥ |
| * لايوجد تحفظات في سياسه مسئوليه وسلطه المراجعه الداخليه . | ١ | ۲ | ٣ | ٤ | 0 |
| * مجلس الأدارة هو الذي يعين وينهى خدمه رئيس قسم المراجعه الداخليه . | ١ | ۲ | ٣ | ٤ | 0 |
| * وثيس قسم المراجعه الداخليه يقدم تقارير أنشطه قسم المراجعه الداخليه بصفه | | | | | |
| مستمره لمجلس الأدارة . | ١ | ۲ | ٣ | ٤ | ٥ |
| * يوجد شرح وظيفي لكل وظيفه من وظائف قسم المراجعه الداخليه . | ١ | ۲ | ۳ | ٤ | ٥ |
| * عند توظيف المراجعيين الداخليين فقط يتم اختبار هؤلاء الذين لديهم درايه | | | | | |
| بالمحاسبه . | ١ | ۲ | r r r | ٤ | 0 |
| * الاقراد الذين لديهم درايه ومعرفه بمجالات مختلفه أخرى يتم اختبارهم كمراجعين | | | | | |
| داخلين . | ١ | ۲ | ٣ | ٤ | 0 |
| * يتم تقييم أداء المراجع الداخلي على الأقل مره سنوياً . | ١ | ۲ | ٣ | ٤ | 0 |
| * المنظمه لاتؤيد مفهوم التدريب للمراجعين الداخليين . | ١ | ۲ | ٣ | ٤ | • |
| * سياسه التدريب لقسم المراجعه الداخليه تشمل أرسال المراجعيين لبرامج تدريبيه | | | | | |
| | 1 | ۲ | ٣ | ٤ | 0 |
| ب * يرتامج التدريب الداخليه توفر لجميع المراجعين الداخليين . | ١ | ۲ | ٣ | ٤ | 0 |
| * برامج التدريب غير متوافره لكل مرجع داخلى . | ١ | ۲ | ٣ | ٤ | 0 |
| * المهام الموكله للمراجعين الداخليين تتغير بصفه دوريه كلما كان ذلك عملياً . | ١ | ۲ | ٣ | ٤ | 0 |
| * يتم السماح للمراجعين بالقيام بأعمال تنفيذيه خارج قسم المراجعه مع احتفاظهم | | | | | |
| | | Y | - | | |
| خارج المنظمه . * بونامج التدريب الداخليه توفر لجميع المراجعين الداخليين . * بوامج التدريب غير متوافره لكل مرجع داخلى . * المهام الموكله للمراجعين الداخليين تتغير بصفه دوريه كلما كان ذلك عمليا . * يتم السماح للمراجعين بالقيام بأعمال تنفيذيه خارج قسم المراجعه مع احتفاظهم بصفتهم كمراجعين داخليين . | | | | | |
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| * أى خلاف رئيسى فى المصالح يواجه أى عضو فى قسم المراجعه يتم ابلاغه لرئيس | | | | | |
|---|--------|---|-------------|---|---|
| قسم الراجعه الداخليه . | \ \ | ۲ | ۳ | ٤ | 0 |
| * يتم اعداد خطط بأهداف قصيره وطويله المدى لقسم المراجعه الداخليه . | 1 | ۲ | ۳ | ٤ | 0 |
| * الخطه السنويه لقسم المراجعه الداخليه يتم تقسيمها الى خطط نصف سنويه ، ربع | | | | | |
| سنويه ألغ . | 1 | 4 | ۳ | ٤ | • |
| * يتم اعداد موازنات زمنيه وموازنات للأفراد في قسم المراجعه الداخليه للعام بأكمله . | 1 | ۲ | ٣ | ٤ | • |
| * يتم مقارنه العمل الذي تم انجازه مع الخطه السنويه لقسم المراجعه الداخليه . | 1 | ۲ | ٣ | ٤ | 0 |
| * يتم اعتماد الخطه السنويه لقسم المراجعه الداخليه من مجلس الأدارة . | | ۲ | ٣ | ٤ | • |
| * لايوجد دليل للمراجعه في قسم المراجعه الداخليه . | 1 | Y | ۳ ۳ ۳ | ٤ | 0 |
| * لايوجد سياسه مصدره للأجرا مات التي يجب على المراجعين اتباعها أثناء تأديتهم | | Ì | Ì | } | Í |
| عملهم . | • | ۲ | ٣ | ٤ | • |
| * يتم ابلااغ الجهه التي سيتم مراجعتها بقدوم عمليه المراجعه قبل بدء العمل . | \ \ | ۲ | ٣ | ٤ | • |
| * يتم مناقشة الهدف من عمليه المراجعه الداخليه مع اداره الجهه التى يتم مراجعتها | | | 1 | | |
| مالم تتطلب طبيعه العمل غير ذلك . | | ۲ | ۳ : | ٤ | 0 |
| * يتم ارسال نسخ من التقرير المبدئي للمراجعه الداخليه لأدارة الجهه التي تم مراجعتها | | | | | |
| لمعرفه تعليقاتهم على ما ورد بالتقرير . | | ۲ | ٣ | ٤ | 0 |
| * لايتم مناقشه محتويات التقرير مع ادارة الجهه التي تم مراجعتها قبل اصدار التقرير | | | | | |
| النهائي . | 1 | ۲ | ٣ | ٤ | 0 |
| * التقرير النهائى للمراجعه الداخليه لايحوى تعليقات الجهه التى تم مراجعتها . | 1 | ۲ | ٣ | ٤ | 0 |
| * أعماله المراجعه الداخليه تتابع بصفه مستمره لضمان توافقها مع معاير وسياسات | | | | | |
| مالم تتطلب طبيعة العمل عير ذلك . * يتم ارسال نسخ من التقرير المدئى للمراجعة الداخلية لأدارة الجهة التى تم مراجعتها للعرفة تعليقاتهم على ما ورد بالتقرير . * لايتم مناقشة محتويات التقرير مع ادارة الجهة التى تم مراجعتها قبل اصدار التقرير النهائى . * التقرير النهائى للمراجعة الداخلية لا يحوى تعليقات الجهة التى تم مراجعتها . * أعمال المراجعة الداخلية تتابع بصفة مستمرة لضمان ترافقها مع معاير وسياسات ويرامج المراجعة . | ١ | ۲ | ٣ | ٤ | 0 |
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| * جودة أعمال قسم المراجعه الداخليه يتم تقيمها داخليا من خلال برنامج تقييم داخانه | | | | ٤ | |
| داخليه. | | T | Г | ٤ | • |
| * لايوجد برامج تقييم خارجيه من جهه خارج المنظمه لمستوى جوده أعمال قسم | | | | | |
| المراجعه الداخليه . | 1 | ۲ | ٣ | ٤ | 0 |
| * برامج التقييم الخارجيه لمتوى جوده عمل قسم المراجعه الداخليه تتم على الأقل | | | | | |
| مره كل ثلاث سنوات . | ` | ۲ | ٣ | ٤ | • |
| | | | | | |
| اسور خارجيه | | | | | |
| * لايتم مناقشة العمل المخطط لقسم المراجعه الداخليه مع المراجعين الخارجيين . | \ | ۲ | ٣ | ٤ | 0 |
| * يتم تبادل خطط العمل بين المراجعين الداخليين والخارجيين لتقليل تكرار العمل . | • | ۲ | ٣ | ٤ | • |
| * التعاون بين المراجعين الداخليين والخارجيين يتم أبقاء في أقل حد ممكن . | • | ۲ | ٣ | | 0 |
| * المراجعين الخارجيين يقوموا بمناقشه نتائج عملهم مع المراجعين الداخليين . | • | ۲ | ٣ | ٤ | 0 |
| * 11 احمدن الجارجيين بمتدين على عمل الم احمين الداخليين في أداء أعمالهم . | | ۲ | ٣ | ٤ | • |
| * المراجعين الداخليين يستفيدون من أساليب وتقنيات المراجعين الخارجيين . | 1 | ۲ | ٣ | ٤ | 0 |
| * يتم ارسال نسخ من تقارير المراجعه الداخليه الى المراجعين الخارجيين بصفه مستمره. | | ۲ | ٣ | ٤ | • |
| * اختبار أثار أنشطه المنظمه على البينه لايتَّع ضمن مستوليات المراجعه الداخليه . | \ | ۲ | ٣ | ٤ | • |
| * المراجعه الداخليه تختبر الالتزام بالقوانين والسياسات الخاصه بالبينه . | | Y | ٣ | ٤ | 0 |
| المراجعين الداخليين يستفيدون على على مر بعين متا المراجعين الخارجيين . * المراجعين الداخليين يستفيدون من أساليب وتقنيات المراجعين الخارجيين بصفه مستمره. * يتم ارسال نسخ من تقارير المراجعه الداخليه الى المراجعين الخارجيين بصفه مستمره. * اختيار أثار أنشطه المنظمه على البيئه لايقع ضمن مسئوليات المراجعه الداخليه . * المراجعه الداخليه تختير الالتزام بالقرانين والسياسات الخاصه بالبيئه . * المراجعه الداخليه الى المراجعة الداخليه الى المراجعين الخارجيين بصفه مستمره. | | | | | |
| للمحافظه على البينه وإن هذه السباسه بتم تطبيقها . | | ۲ | ٣ | ٤ | |
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معلومات عن المنظمة : 1 - يمكن وصف المنظمة التس تعمل بما علس انما - قطاع عام - قطاع خاص

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۲ – ما حجم المنظمه التي تعمل بغا من ناحية عدد العاملين

- أقل من ٠٠ ه ()
- () ...-0.1-
- ۲۰۰۱ ۲۵۰۰ () - أكثر من ۲۰۰۰ ()

٣ – مادجم المنظمه التى تعمل بما من نادية الإيراد السوى أو دصص . الموازنه لهذا العام .

مليون جنيه

- أقل من ١٥٠ () – ١٥١ – ٦٠٠ ()
- () 7.. 101 -() 999 - 7.1 -
- أكثر من ١٠٠٠ ()

Σ – هل يوجد هيئه للمراجعه في المنظمة التي تعمل بها – نعم

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٥ - يمكن وحف وظيفتك فى المنظمه كا
 - رئيس قسم المراجعه الداخليه
 مدير مراجعه داخليه / مراجع أول
 - مراجع داخلى
 - مراجع داخلى

۸ – ای معلومات آذری زدب اضافتها

ولن يتم نشرها بأى صوره من الصور .

______ إذا كنت ترغب في المشاركه في أى مقابله قد يحتاج اليها البحث من فضلك أكتب أسمك وعنوان المراسله . مع العلم أن جميع الأسماء والعناوين سوف تعامل بسريه تامه ، ولن يتم نقلها الى أية جهة أخرى أو حفظه في أية ملفات

> الأسم : العنوان : رقم التليفون :

شكرالاخذك جزء من وقتك لتكمله هذا الاستبيان

APPENDIX B



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عزيزج السيد /

عزيزتي السيده ا

أتنى حاليا أعد بحثا عن تكوين اطار منطقى للمراجعة الداخلية واختبار استقبال هذا الاطار بين مستويات مختلفه من المراجعين الداخليين العاملين فى القطاعين العام والخاص فى كل من الدول المتقدمه والدول الناميه . ايضا استطلاع مدى التوافق بين التطبيق العملى للمراجعة الداخليه وبين الاطار المنطقى .

هذا البحث يجرى بهدف الحصول على درجة دكتوراه الفلسفه فى المراجعه . كجزء من هذا البحث فإننى مطالب بجمع اراء المراجعين الداخليين العاملين من اجل ذلك فإننى استرعى انتباهكم لاستمارة الاستبيان المرفقه .

هذا الاستبيان يجمع معلومات عن استطلاع رؤيتكم للعناصر المختلفه لمهنه المراجعه الداخليه. ان تعاونكم الطيب فى اكمال اعاده استماره الاستبيان لذو أهمية قصوى فى اتمام البحث . لذلك فإننى سأكون فى غايه الامتنان اذا اخذتم بعض الوقت لاكمال استمارة الاستبيان .

اود ان اطمئنكم أن جميع الاستمارات المعاده سوف تعامل في سريه تامه والباحث سوف يكون الوحيد صاحب حق الاطلاع عليهاً . جميع الردود سوف تحلل بأستخدام الحاسب الآلي والنتائج سوف تنشر في صورة نتائج احصائيه فقط .

فى مرحلة مقبله من البحث قد يحتاج الباحث الى مقابله بعض المراجعين الداخلين لذلك اذا رأيتم أنه بامكانكم المشاركه فى أى عمليه مقابلات مع الباحث ، من فضلك أكتب أسمك وعنوانك فى نهاية استمارة الاستبيان .

ختاما اشكر حسن تعاونكم في هذا البحث .

مع جزيل الشكر والتقدير

أيغاب كامل أبو الخير محمد

APPENIDIX C1

These statements describe the way you <u>perceive</u> your profession as an internal auditor. Please tick the box that you feel best describes your view about the statement.

CONCEPTUAL MATTERS:

* Internal auditing is an independent function that examines and evaluates an organisation's activities.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | |
|--|-------|-----------|----------|-------------------|--|--|--|
| Management should be the only recipient of the services of internal audit. | | | | | | | |
| | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | |
| Internal audit is a service to all members of organisation. | | | | | | | |

| Strongly Agree Agree | Uncertain | Disagree | Strongly Disagree |
|----------------------|-----------|----------|-------------------|
|----------------------|-----------|----------|-------------------|

* Internal audit services <u>do not</u> include providing counsel to members of the organisation.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | |
|----------------|-------|-----------|----------|-------------------|--|
| Brong J - Broo | | | | | |

• The internal audit service can only be provided through formal recommendations.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|----------------|-------|-----------|----------|-------------------|
| | | <u></u> | | |

* Effective control should be promoted at any cost.

| Strongly Agree Agree Uncertain Disagree Strongly Disagree | Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | |
|---|----------------|-------|-----------|----------|-------------------|--|
|---|----------------|-------|-----------|----------|-------------------|--|

* Examining financial matters is the only internal audit responsibility.

| | Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|--|----------------|-------|-----------|----------|-------------------|
|--|----------------|-------|-----------|----------|-------------------|

* Internal audit should review the economy and efficiency with which operations are performed.

| Strongly Agree Agree Uncertain Disagree Strongly Disagree | |
|---|--|
|---|--|

* Examining the effectiveness of meeting organisation's objectives should not part of internal audit's responsibility.

| Strongly Agree Agree Uncertain Disagree Strongly Disagree | |
|---|--|
|---|--|

* Economy means minimising the cost of acquiring inputs and resources

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | |
|----------------|-------|-----------|----------|-------------------|--|
| | | | | | |

Efficiency is achieving the optimal ratio of outputs produced to inputs used.

| Strongly Agree Agree Uncertain Disagree Strongly Disagreg | |
|---|--|
|---|--|

* Effectiveness is the success in achieving goals and objectives.

| | Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|--|----------------|-------|-----------|----------|-------------------|
|--|----------------|-------|-----------|----------|-------------------|

OPERATIONAL MATTERS:

* Auditees should be selected according to a systematic plan that allows for meeting ad hoc requests.

| Strongly Agree Agree Uncertain Disagree Strongly Disagree | Strongly Agree A | Agree Uncertain | Disagree | Strongly Disagree |
|---|------------------|-----------------|----------|-------------------|
|---|------------------|-----------------|----------|-------------------|

* Auditees should be selected on ad hoc basis only.

| Strongly Agree Agree Uncertain Disagree Strongly Disagree | Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | |
|---|----------------|-------|-----------|----------|-------------------|--|
|---|----------------|-------|-----------|----------|-------------------|--|

The internal auditor does not need to have knowledge of the operation to be reviewed.

| | Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | |
|--|----------------|-------|-----------|----------|-------------------|--|
|--|----------------|-------|-----------|----------|-------------------|--|

A time budget should be prepared for each internal audit task.

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| | <u> </u> | | | | | | <u></u> | | <u> </u> |
|---|----------|------------|-------|--------------------------------|--------|----------------|----------|---|----------|
| Strongly Agree | | Agree | | Uncertain | | Disagree | <u> </u> | Strongly Disagree | |
| • The objecti the audit ta | | d scope o | of ev | ery internal a | audit | should be c | learly | defined at the beginn | ning (|
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| A prelimina field work. | ary sui | rvey of th | ne op | perations to b | e au | dited should | be pe | erformed before starti | ng th |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| * An audit pr | ogran | nme shou | ıld b | e prepared fo | or ev | ery internal a | audit | assignment. | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| * At the begi | nning | of any in | ntern | al audit exist | ing c | controls shou | ld be | described and evalua | ted. |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| | | | - | ess should ind degree of co | | | | fectiveness and efficie trol system. | ency |
| Strongly Agree | | Agree | | Uncertain | | Disagree | <u> </u> | Strongly Disagree | |
| * At the end controls. | of the | testing p | roce | ss a conclusio | on ha | s to be reach | ed on | the effectiveness of e | xistin |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| There shou papers. | ld be | a standa | ird p | olicy for co | llecti | ng, filing an | d keej | ping internal audit wo | orkin |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| | | | | | | | | | |

| • There is no r | need to check t | the findings of th | e internal audit re | eport against working papers. |
|-----------------------|----------------------------------|--------------------|---------------------|------------------------------------|
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
| There should | be an audit fi | le for every inter | nal audit assignm | ent. |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
| • The internal | audit report sh | ould include fav | ourable as well as | adverse finding. |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
| * The report we work. | riting process s | hould be a contir | nuous process that | starts with the start of the audit |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
| • The internal | audit task shou | uld be concluded | once the formal | report is issued. |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
| • A follow up p | process should | be carried out to | ensure implemen | ntation of recommendations. |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
| | operations sho d organisation | - | with results from | previous years and from similar |

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|----------------|-------|-----------|----------|-------------------|
| | | <u> </u> | | |

ORGANISATIONAL MATTERS:

Internal audit should be a separate function that is not part of any other department.

| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
|--|--------|------------|---------|---------------|--------|----------------|--------|------------------------|-------|
| * Internal au | dit sh | nould repo | ort di | rectly to the | boa | rd of directo | rs. | | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| The scope, a to all membra | | • | • | • | terna | l audit shoul | d be c | learly set and commun | icate |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| • The chief in | ntern | al auditor | r shou | ld have dire | ct co | ommunicatio | n with | the board. | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| • The decisio board of dir | | | g or re | emoving the | chie | f internal au | ditors | should only be made | by th |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| * All internal | audi | tors shou | ld be | members of | the | Institute of] | Intern | al Auditors. | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| * Accounting | is th | e only dis | ciplin | e that interr | ial ai | uditors need | to po | ssess. | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| Internal aud etc. | litors | could be | select | ed from peo | ple v | vho have kno | wledg | e in engineering, comp | outin |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |

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There is no need to send auditors to formal training and educational programmes.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|----------------|-------|-----------|----------|-------------------|

* Internal audit training programmes should include both in-house and external formal training programmes.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|----------------|-------|-----------|----------|-------------------|
| | | | | |

* The performance of individual auditors should be appraised once a year.

| | Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|--|----------------|-------|-----------|----------|-------------------|
|--|----------------|-------|-----------|----------|-------------------|

* There is nothing wrong in auditors who have recently joined the audit department auditing the activity they have just left to join the department.

|--|

* Any potential conflict of interest should be brought to the attention of the chief internal auditor.

| Strongly Agree Agree Uncertain Disagree Strongly Disagree | Strongly Agree | Agree | | Disagree | Strongly Disagree | |
|---|----------------|-------|--|----------|-------------------|--|
|---|----------------|-------|--|----------|-------------------|--|

* The internal audit department should prepare plans with both long and short term goals.

| Strongly Agree Agree I | Uncertain Disagree | Strongly Disagree |
|------------------------|--------------------|-------------------|

* There is no need to prepare time and staff budgets for the entire year within the audit department.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | |
|----------------|-------|-----------|----------|-------------------|--|
| | | | | | |

* The internal audit annual plan should be approved by the board of directors.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|----------------|-------|-----------|----------|-------------------|
| | | | | |

There should be an audit manual that explains procedures to be followed by auditors in performing their work.

| Strongly Agree | | Agree | | Uncertain | Disagree | | Strongly Disagree |
|----------------|----------|-------|----------|-----------|----------|---|-------------------|
| | <u>·</u> | | <u> </u> | | Disagree | Ļ | |

* Auditee's management should be informed in advance of any forthcoming audit, unless the nature of the audit requires otherwise.

| Strongly Agree Agree Uncertain Disagree Strongly Disagree | Strongly Agree Agree Uncertain Disagree | Strongly Disagree |
|---|---|-------------------|
|---|---|-------------------|

* The objective of the audit should be discussed with management of the activity to be audited, unless secrecy is required.

| Strongly Agree Agree Oncertain Disagree Strongly Disagree | Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|---|----------------|-------|-----------|----------|-------------------|
|---|----------------|-------|-----------|----------|-------------------|

* Findings of the audit report should not be discussed with the auditee's management.

| Strongly Agree Agree Uncert | ain Disagree | Strongly Disagree |
|-----------------------------|--------------|-------------------|
|-----------------------------|--------------|-------------------|

* Copies of the draft report should be circulated to the auditee's management for their comments

| Strongly Agree Agree Uncertain Disagree Strongly Disagree |
|---|
|---|

* Auditee's management comments on the findings and recommendations should not be included in the report.

| Strongly Agree Ag | ree Uncertain | Disagree | Strongly Disagree |
|-------------------|---------------|----------|-------------------|
|-------------------|---------------|----------|-------------------|

* Auditors should try to maintain a good relationship with auditees as long as their objectivity is not impaired.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | |
|----------------|-------|-----------|----------|-------------------|--|
| | | | | | |

The existence of an audit committee helps in ensuring more effective audit service.

| Strongly Agree Agree Uncertain Disag | gree Strongly Disagree |
|--------------------------------------|------------------------|
|--------------------------------------|------------------------|

* The existence of an audit committee can give the internal audit function more strength and independence.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|----------------|-------|-----------|----------|-------------------|
| <u> </u> | | | | |

* Audit work should be continuously supervised to ensure conformance with audit standards, policies and programmes.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|----------------|-------|-----------|----------|-------------------|
| | | | <u> </u> | |

* The quality of the work of the internal audit department should be reviewed at least once every three years.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|----------------|-------|-----------|----------|-------------------|
| | | | | |

* There should be regular internal reviews of the quality of the work of the internal audit department.

| | Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | |
|--|----------------|-------|-----------|----------|-------------------|--|
|--|----------------|-------|-----------|----------|-------------------|--|

* There is no need for external reviews of the quality of work of the internal audit department.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | |
|----------------|-------|-----------|----------|-------------------|--|
| | | | | | |

EXTERNAL MATTERS:

* Maintaining a good relationship with external auditors is of no importance to internal auditors.

| | Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | |
|--|----------------|-------|-----------|----------|-------------------|--|
|--|----------------|-------|-----------|----------|-------------------|--|

* Internal auditors should never discuss their work plans with external auditors.

| Strongly Agree | Agree | | Uncertain | Disagree | Strongly Disagree | |
|----------------|-------|---------|-----------|----------|-------------------|--|
| | L | <u></u> | | | | |

* Copies of the internal audit reports should be regularly sent to external auditors.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|---|----------------|-------------------|-------------------|---------------------------------|
| Internal audit | ors could ben | efit from the tec | hniques develope | ed and used by external auditor |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
| External audi duties. | itors should b | e able to rely or | n the work of int | ternal auditors in executing th |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
| ' There is no r | oom for coop | eration between | internal and exte | rnal auditors. |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
| Internal audit | tors have no r | ole to play towar | rds the environm | ent. |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
| Internal polic put into effect | | examined to ens | ure that there is | an environmental policy and in |

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|----------------|-------|-----------|----------|-------------------|
| | | | | leg- <u></u> leg |

ORGANISATION PROFILE:

| 1. | Your organisation could best be classified as: (a) Public sector? (b) Private sector? | [[|]] |
|----|---|-------------|------------------|
| 2. | What is the size of your organisation in terms of the number of employees: (a) 500 and under? (b) 501 - 1000? (c) 1001 - 2500? (d) 2501 and over? | |]]]] |
| 3. | What is the size of your organisation in terms of annual turnover or budget allocation for the current financial year: | | |
| | £m (a) under 150? (b) 151 - 600? (c) 601 - 999? (d) 1000 and over? | |]]]] |
| 4. | Does your organisation have an audit committee: (a) Yes? (b) No? | [[|]] |
| 5. | Your position in the organisation can be best described as: (a) Chief internal auditor? (b) Internal audit manager/Senior internal auditor? (d) Internal auditor? | [[[|]]] |
| 6. | Are you a member of: (a) The Institute of Internal Auditors? (b) Any other Professional Body? | [[|]] |
| 7. | What is your sex: (a) Male? (b) Female? | [[|]] |

8. Any other information you would like to add?

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If you would like to participate in an interview please write your name and contact address below. The names and addresses of all <u>WILL NOT BE HELD ON ANY DATABASE OR PASSED ON TO ANYOTHER USER.</u>

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Thank you for taking the time to complete this questionnaire

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THESE STATEMENTS DESCRIBE THE <u>PRACTICE</u> OF INTERNAL AUDIT <u>IN</u> <u>YOUR ORGANISATION</u>:

Please tick the box that best describes your view about the statement.

INTERNAL AUDIT IN PRACTICE IN YOUR ORGANISATION:

* Internal audit works by reviewing and examining the organisation's systems of internal control.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | |
|----------------|-------|-----------|----------|-------------------|--|

* The internal audit department provides a service to all members of the organisation.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | |
|-----------------|-------|-----------|----------|-------------------|--|
| Strollgly Agree | Agree | Oncertain | Disagice | Strongly Disagree | |

* The internal audit service is provided through formal recommendation only.

| Strongly Agree U | ncertain Disagree | Strongly Disagree |
|------------------|-------------------|-------------------|
|------------------|-------------------|-------------------|

• Only the financial aspects of operations that are covered by the internal audit review.

| Strongly Agree Agree Uncertain Disagree Strongly Disagree | Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|---|----------------|-------|-----------|----------|-------------------|
|---|----------------|-------|-----------|----------|-------------------|

* Operations are reviewed to ensure economy and efficiency.

| | Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|--|----------------|-------|-----------|----------|-------------------|
|--|----------------|-------|-----------|----------|-------------------|

• Examining effectiveness in achieving organisation's objectives is not part of the internal audit task.

| Strongly Agree Agree Uncertain | n Disagree | Strongly Disagree | |
|--------------------------------|------------|-------------------|--|
|--------------------------------|------------|-------------------|--|

OPERATIONAL MATTERS:

* The selection of auditee is based on a systematic cycle.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
|---|---|-----------|----------|-------------------|--|--|--|--|--|--|
| Auditees are selected on ad hoc basis only. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| Having a knowledge of the operation to be reviewed is the main basis for selecting the inter- auditor. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| The internal auditors do not have to have knowledge of the operation to be reviewed. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| • There is no time limit on how long each internal audit assignment should take. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| The objective and scope of each audit is defined before the start of the audit work. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| No preliminary survey of the operation is carried out before starting the field work. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| * An audit pr | An audit programme is prepared for every internal audit assignment. | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |

The field work starts with describing the existing controls.

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| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
|---|------------------|--------------------|-------------------|--------------------|--|--|--|--|--|--|
| - Subligity Agree | | Oncertain | Disagice | | | | | | | |
| • Controls are evaluated to assess their associated risks. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| A draft report is prepared by the internal audit team on the field. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| Working pa | pers are check | ed against the fin | dings of the inte | rnal audit report. | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| There is no standard policy on how internal audit working papers are collected, filed and kep | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| • Working papers are collected as work progresses. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| An audit file is kept for each internal audit assignment. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| • All reports are reviewed and approved by the chief internal auditor before publication. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| • The interna | l audit report o | only includes adve | rse findings. | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |

The internal audit task ends with the issue of the final report.

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| · | | | | | | | | | | |
|--|-------|-----------|-------|----------------|-------|---------------|--------|-----------------------|-------|--|
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | | |
| • A follow-up process is carried out to ensure the implementation of recommendations. | | | | | | | | | | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | | |
| Economy is measured through comparing the year's information with information from previous years. | | | | | | | | | | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | | |
| • Operations' | resul | ts are no | t coi | mpared with | resul | ts from simi | lar or | ganisations. | | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | | |
| The internal audit task includes ensuring that organisation's objectives are clearly set. | | | | | | | | | | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | | |
| • The chief internal auditor reports directly to the board. | | | | | | | | | | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | · | Strongly Disagree | | |
| Internal audit is an separate department. | | | | | | | | | | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | | |
| • The manage of internal a | | has issue | ed a | policy stateme | ent c | overing the s | cope, | authority and respons | ibili | |

| Strongly Agree Agree Uncertain Disagree Strongly Disagree | | | | | |
|---|----------------|-------|-----------|----------|-------------------|
| | Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |

There are restrictions in the internal audit policy statement.

. .

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
|--|--|-----------|-------------------|--------------------------------|--|--|--|--|--|--|
| The board concurs in the appointment and removal of the chief internal auditor. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| The chief internal auditor regularly submits activity reports to the board. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| • There is wri | There is written job description for each level of the internal audit staff. | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| * When recruiting internal audit staff only those with accounting knowledge are selected. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| Individuals with different disciplines are recruited as internal auditors. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| Internal auditors' performance is appraised at least once a year. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| The organisation does not support the concept of training and professional development for internal audit staff. | | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | | |
| | al audit departm l educational pro | • • | icy includes send | ling auditors to formal outsid | | | | | | |

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | II |
|----------------|-------|-----------|----------|-------------------|----|
| Buongly Agree | Agree | Oncertain | Disagree | Dublighy Disagree | |
| | | | | | |

In-house training pogrammes are provided to all internal auditors.

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| | Agree | | Uncertain | | Disagree | | Strongly Disagree | | | |
|---|---|--|--|---|---|---|--|--|--|--|
| Training programmes are not available for every internal auditor. | | | | | | | | | | |
| | Agree | | Uncertain | | Disagree | | Strongly Disagree | | | |
| Internal auditors assignments are rotated periodically whenever it is practical to do so. | | | | | | | | | | |
| | Agree | | Uncertain | | Disagree | | Strongly Disagree | | | |
| litors | are allow | ved t | o assume ope | eratii | ng responsibi | ilities | in their capacity as au | ditor | | |
| | Agree | | Uncertain | | Disagree | | Strongly Disagree | | | |
| Any potential conflict of interest experienced by the audit staff is brought to the attention the chief internal auditor. | | | | | | | | | | |
| | Agree | | Uncertain | | Disagree | | Strongly Disagree | | | |
| Internal audit plans with long and short term goals are prepared. | | | | | | | | | | |
| | Agree | | Uncertain | | Disagree | | Strongly Disagree | | | |
| The annual internal audit plan is broken down into quarterly, monthly, or other plans. | | | | | | | | | | |
| | Agree | | Uncertain | | Disagree | | Strongly Disagree | | | |
| Strongly Agree Agree Uncertain Disagree Strongly Disagree Time and staff budget for the internal audit department are prepared for the entire year. | | | | | | | | | | |
| | Agree | | Uncertain | | Disagree | | Strongly Disagree | | | |
| | litors litors al co terna lit pl inter | ogrammes are Agree ditors assignme Agree ditors are allow Agree al conflict of i ternal auditor. Agree dit plans with l Agree dit plans with l Agree aff budget for | Agree Agree litors assignments Agree litors are allowed t Agree al conflict of interdernal auditor. Agree lit plans with long Agree internal audit plans and the plans and the plans Agree and the plans | ogrammes are not available for Agree Uncertain ditors assignments are rotated p Agree Uncertain ditors are allowed to assume ope Agree Uncertain al conflict of interest experienc ternal auditor. Agree Uncertain dit plans with long and short ter Agree Uncertain internal audit plan is broken do Agree Uncertain | Ogrammes are not available for ever Agree Uncertain ditors assignments are rotated period Agree Uncertain ditors are allowed to assume operatin ditors are allowed to assume operatin al conflict of interest experienced by ternal auditor. Agree Uncertain dit plans with long and short term go Agree Uncertain internal audit plan is broken down i aff budget for the internal audit dep | Ogrammes are not available for every internal au Agree Uncertain Disagree ditors assignments are rotated periodically whene Agree Uncertain Disagree ditors are allowed to assume operating responsibilities Agree Uncertain Disagree ditors are allowed to assume operating responsibilities Agree Uncertain Disagree al conflict of interest experienced by the audit sternal auditor. Disagree Disagree lit plans with long and short term goals are prep Agree Uncertain Disagree internal audit plan is broken down into quarter Agree Uncertain Disagree aff budget for the internal audit department are Disagree Disagree | ogrammes are not available for every internal auditor. Agree Uncertain Disagree ditors assignments are rotated periodically whenever it Agree Uncertain Disagree ditors are allowed to assume operating responsibilities Agree Uncertain Disagree al conflict of interest experienced by the audit staff is ternal auditor. Agree Uncertain Disagree bit plans with long and short term goals are prepared. Agree Uncertain Disagree internal audit plan is broken down into quarterly, more affit budget for the internal audit department are prepared. Disagree | ogrammes are not available for every internal auditor. Agree Uncertain Disagree Strongly Disagree litors assignments are rotated periodically whenever it is practical to do so. Agree Uncertain Disagree Strongly Disagree litors are allowed to assume operating responsibilities in their capacity as au Agree Uncertain Disagree Strongly Disagree al conflict of interest experienced by the audit staff is brought to the attent ternal auditor. Agree Uncertain Disagree Strongly Disagree lit plans with long and short term goals are prepared. Agree Uncertain Disagree Agree Uncertain Disagree Strongly Disagree internal audit plan is broken down into quarterly, monthly, or other plans. Agree Uncertain Disagree aff budget for the internal audit department are prepared for the entire yea Strongly Disagree Agree Strongly Disagree | | |

* Completed internal audits and time spent are recorded against the annual plan.

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| Change In A man | | T I and a la | D' | Character Discourse | | | | | |
|--|-------|--------------------|--------------------|----------------------------------|--|--|--|--|--|
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | |
| • The annual internal audit plan is approved by the board of directors. | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | |
| The internal audit department does not have an audit manual. | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | |
| There is no policy statements on the procedures to be followed by internal auditors while performing audit work. | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | |
| Auditee's management are informed in advance of forthcoming audit. | | | | | | | | | |
| Strongly Agree Agree Uncertain Disagree Strongly Disagree | | | | | | | | | |
| The objective of the audit is discussed with the auditee's management, unless secrecy is required | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | |
| • Copies of the draft report are circulated to the auditee's management for their comments. | | | | | | | | | |
| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | | | | | |
| There is no r the final rep | | the contents of th | ne report with auc | litee's management before issuin | | | | | |

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | |
|----------------|-------|-----------|----------|-------------------|--|
| | | | | | |

Auditee's management comments are not included in the report.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|----------------|-------|-----------|----------|-------------------|
|----------------|-------|-----------|----------|-------------------|

* The internal audit work is continually supervised to ensure conformance with audit standards, policies and programmes.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|----------------|-------|-----------|----------|-------------------|
| | | | 1 1 | |

• The quality of internal audit work is appraised through internal reviews.

| Strongly Agree Agree Uncertain Disagree Strongly Disagree |
|---|
|---|

* There is no external reviews to appraise the quality of internal audit work.

| | Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|--|----------------|-------|-----------|----------|-------------------|
|--|----------------|-------|-----------|----------|-------------------|

 External reviews to appraise the quality of internal audit work are performed at least once every three years.

| Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | |
|----------------|-------|-----------|----------|-------------------|------|
| | | | | | لمصح |

EXTERNAL MATTERS:

* The planned internal audit work is not discussed with external auditors.

| | Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree | |
|--|----------------|-------|-----------|----------|-------------------|--|
|--|----------------|-------|-----------|----------|-------------------|--|

* Audit plans are exchanged between internal and external auditors to minimise duplication of audit work.

| | | Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
|--|--|----------------|--|-------|--|-----------|--|----------|--|-------------------|--|
|--|--|----------------|--|-------|--|-----------|--|----------|--|-------------------|--|

* Cooperation between internal and external auditors is kept to a minimum.

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| [| <u> </u> | | T | | | · · · · · · · · · · · · · · · · · · · | | ······································ | |
|--|---|-------------|-------|---------------|------|---------------------------------------|--------|--|--|
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| • External au | External auditors discuss their findings with internal auditors. | | | | | | | | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| • External au | iditor | rs rely on | inter | rnal auditors | work | in executin | g thei | r task. | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| * Internal au | Internal auditors benefit from the techniques developed by external auditors. | | | | | | | | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| * Copies of internal audit reports are sent to external auditors. | | | | | | | | | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| Examining the effect of operations on the environment does not fall within the duties of internal audit. | | | | | | | | | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| • Compliance with laws and regulations regarding the environment is examined by internal auditors. | | | | | | | | | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |
| Internal policies are examined to ensure that there is an environment policy and it is being put into effect. | | | | | | | | | |
| Strongly Agree | | Agree | | Uncertain | | Disagree | | Strongly Disagree | |

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ORGANISATION PROFILE:

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| 1 . | Your organisation could best be classified as: (a) Public sector? (b) Private sector? | [[|]] |
|------------|---|-------------|------------------|
| Ż. | What is the size of your organisation in terms of the number of employees: (a) 500 and under? (b) 501 - 1000? (c) 1001 - 2500? (d) 2501 and over? | [[[|]]]] |
| 3. | What is the size of your organisation in terms of annual turnover or budget allocation for the current financial year: | | |
| | £m (a) under 150? (b) 151 - 600? (c) 601 - 999? (d) 1000 and over? | |]]] |
| 4. | Does your organisation have an audit committee: (a) Yes? (b) No? | [[|]] |
| 5. | Your position in the organisation can be best described as: (a) Chief internal auditor? (b) Internal audit manager/Senior internal auditor? (d) Internal auditor? | [[[|]]] |
| 6. | Are you a member of: (a) The Institute of Internal Auditors? (b) Any other Professional Body? | [[|]] |
| 7. | What is your sex: (a) Male? (b) Female? | [[|]] |

8. Any other information you would like to add?

.

If you would like to participate in an interview please write your name and contact address below. The names and addresses of all <u>WILL NOT LE HELD ON ANY DATABASE OR PASSED ON TO</u> <u>ANYOTHER USER</u>.

Thank you for taking the time to complete this questionnaire

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