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EXTERNAL AUDITOR INDEPENDENCE:

SELECTED GROUP PERCEPTIONS

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EXTERNAL AUDITOR INDEPENDENCE (EAI):

SELECTED GROUP PERCEPTIONS

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This thesis makes frequent reference to auditing and the auditor. Unless otherwise stated, such references are to external auditing and the external auditor respectively. Additionally, where not repugnant to the context, references made in the masculine only, apply equally to the feminine. Where abbreviations are used without immediate clarification, they are provided in Appendix A of Volume II (List of abbreviations used).

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"... economic, political and even military institutions persist because they have legitimacy, and that legitimacy comes from the perceptions of people. People give legitimacy and they can take it away." [Eisler and Loye, 1990: 37]

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"Quis custodiet ipos custodes?" - [Who is to guard the guardians themselves?] from Satires VI, written by Decimus Junius Juvenalis, Roman satirist (60-130 A.D.).

CHAPTER X

EXPECTATIONS GAPS AND EXTERNAL AUDITOR INDEPENDENCE

The purpose of this chapter is to identify and consider, pockets of possible audit "expectation gaps", such as they are to be detected within the twenty EAI audit situations outlined in the questionnaire.

The chapter is structured within three main sections, the first of which explains the nature of expectation gaps and their relationship to this research. The second section is the chapter's core, being its central focus - an examination and related discussion of expectation gaps in the twenty research situations. The third section is a brief concluding summary of it.

10.1 Expectations gaps and the present research

In conducting this research into EAI, heed is being paid to the ICAEW's [1989a: 5] call asking for research that considers "the rationale for and role served by auditing" to be undertaken.

Research of this type considers (inter alia) why audits are undertaken, and what the pre-conditions for its successful accomplishment are. Related topics [ICAEW, 1989a: 5] include matters such as "the present and future expectations of the users of audit services".

Such expectations include not only the physical output of the audit process - the audit report, but extend to the total audit environment, including expectations related to auditor behaviour. Thus, fruitful areas of research include the behavioural characteristics expected of (from) auditors by the users of their services, such characteristics including professional integrity, objectivity and independence.

The present research

In revealing pockets of "expectation gaps", this chapter helps uncover in the twenty audit situations:

1. the impact of specific audit environments on views of EAI, as seen by an auditor group and some groups of users of their services
2. the gaps by which expectations of EAI by audit users fall short of their perception of actuality.

Expectation Gaps

Shortfalls (or gaps) in the expectations of audit users, when observed (as in 2 above), are described as "expectation gaps". Such gaps have been of concern to professional auditors in the US and UK and the subject of focused enquiry (Cohen Commission [CAR, 1978] in the US). In the UK, research into expectation gaps has been commissioned by the ICAEW ["Examining the Expectation Gap" - Accountancy Age, January 10, 1991: 2].

Expectation gaps explained and defined

In fact, in recent years, the subject of expectation gaps has received reasonable attention in the auditing literature [Liggio, 1974; CAR, 1978; Arrington et al, 1983; Singleton-Green, 1990; Steen 1990 and Porter, 1989 and 1991].

Initially the term "expectation gap" referred to the difference between the levels of expected performance "as envisioned by the independent accountant and by the user of financial statements" [Liggio, 1974]. However this definition was deficient in that it excluded consideration of what may be "reasonably" achieved or accomplished by the auditor.

Thus, the Cohen Commission referred to the term as the gap which "may exist between what the public expects or needs and what auditors can and should reasonably expect to accomplish" [CAR, 1978: xi].

Recently it has been described as the gap between what society expects of auditors and what it perceives it receives from them, in terms of those expectations. This is virtually the view of Porter [1991: 2], who sees it as the gap "between society's expectations of auditors and auditors' performance, as perceived by society."

As such, Porter suggests that instead of the (less precise) term "expectation gap", the (more precise) term "audit expectation-performance gap" should be used. Nevertheless, while retaining use of the term "expectation gap", its present usage refers to the concepts underlying those of the more precise term.

Further, in general, present usage of the term "society" is as used by the Cohen Commission [CAR, 1978], where it is referred to as the population at large, including investors and users of statements, but excluding auditors. Present usage of the term "public" is also synonymous with that meaning of "society".

Research Postulations

On the above basis, this research postulates that:

1. the audit environment is a complex network of many subjects, each made up of a number of underlying issues. Thus, there is not one overall statistic that captures **the** expectation gap. In fact, there are several expectation gaps, one for each underlying issue within each group of users.

2. a major element in any expectation gap is based on perceptual phenomena. Thus, a measurement of the degree to which society perceives (on issues) that its expectations of audits are met, is required.

3. consideration of the audit environment refers not only to the auditor's work procedures and systems, but also to those standards and norms (including the ethical ones) upon which the former rest.

Applying the preceding definition, one may infer that if the perceptions of a specified audit issue by users of audit services, are at one with their expectations of it, there will be no expectation gap for that issue.

If, on the other hand, there is a difference between the perceptions of what audit users believe they receive, and the performance they expect of auditors, then for that issue, there is an expectation gap.

Thus, this research further postulates that attempts to measure the underlying expectation gap for any particular auditing issue, must pay due regard to (at least) the following factors:

1. what society expects of (from) auditors
2. what society perceives it receives from auditors.

As such, assessment of any expectation gap relating to an issue within the auditing environment, must first establish a measure recognising society's judgements of what it expects from auditors, and then relate it to society's perceptions of what it (in fact) so receives.

Research Context

In this research, the views of two distinct categories, first audit-users (who use audit reports) and second audit-issuers i.e. auditors themselves (who issue audit reports) were assessed in terms of EAI, a central plank of the audit profession. The first category was made up of three groups, who each bring a different nuance to their use of audit reports and statements.

Relating the preceding definition of an expectation gap and an amplification of it to EAI, one notes that while it may be impossible for groups of users of audit services to say with certainty if an auditor has acted independently, they may conceivably ask to have total confidence that the auditor will act independently.

However, this position (considers only society's expectations and) ignores what audit-users believe may be reasonably asked of auditors. Thus the judgements of what respondents considered audit-users may reasonably expect, were caught by responses to the question below, placed in the research questionnaire [Appendix B: 254]:

"What do you consider to be the Minimum Level of Confidence in the independence of external auditors that users of audited financial statements may justly (i.e. having regard to all the relevant and reasonable considerations) demand?"

The judgements of respondents' perceptions of what they were, in fact, receiving from auditors, were caught by their individual responses to the "Level of Confidence" in the independence of the external auditor, based on the facts of each of the twenty research situations.

Further, recognising that an expectation gap must be assessed on the perception of what audit-users believe they are receiving, the research questionnaire specifically asked respondents to "respond on the basis of what you expect would really happen, and not on the basis of what you consider should happen".

Determining "Expectation Gaps"

Thus, in any situation, a respondent's expectation gap is the difference between his numerical response (say 3) to the facts of that situation (his factual perception assessment), and his numerical response (say 5) to the general (expectation) MLC question. Thus, in this example, the gap would be -2 (i.e. 3 minus 5).

While the term expectation gap usually implies a negative result, this may not necessarily be the case. Accordingly, expectation gaps may be negative or positive. In positive result situations, the perception of what users receive from the audit, is in fact greater than their expectations of it.

Thus, while this research focuses on negative results, it allows for the opposite situation. Further, present references to an expectation gap assume that it is negative. Where reference to a positive expectation gap is intended, the term positive expectation gap will be used.

Determining the presence of an expectation gap is only the first step in assessing its extent. Having determined its extent, one is then required to develop a reasonable cut-off point to be used when detecting the presence (or absence) of a gap that signals "notable concern" with EAI by respondents.

In the present context, the need to detect concern that is notable or otherwise, is made more important by virtue of the fact that an expectation gap is registered whether the (expectation - performance) gap is -1 or -5.

Thus, while recognising the arbitrary nature of any point used to distinguish concern that is "notable" from concern that is "not notable", this research has deemed any situation where 35% or more of a group showed an expectation gap, as reflecting "notable concern" with EAI for that group. Subsequent usage of that term is made with that interpretation implied.

Further, as assessment of individual respondents' gaps provide only microcosmic insights into the realm of auditing, it is more useful and practical to assess these gaps on the basis of overall constituent groups.

Hence, the approach used in developing and computing individual (and group) expectation gaps was as follows:

1. Individual perceptual responses were deducted from their (individual) response regarding audit expectations. Negative results indicated a concern with the underlying issue and an expectation gap.
2. Group percentages for that proportion reflecting a (concern or) negative expectation gap were computed. These are stated in Table 10.1 (Page 68).
3. Equally, that percentage of each group reflecting a nil (none at all) or positive expectation gap were computed. These are stated in Table 10.2 (Page 69).
4. An assessment of the overall frequency of the gap for all audit users was computed by taking the mean of the percentage within each of the three user groups reflecting a negative expectation gap. This group average is stated in Table 10.3 (Page 70).
5. In order to detect significant group differences in terms of underlying expectation gaps between issuers and audit-users, differences between the percentages stated in 2 were compared. These inter-group differences are stated within Table 10.3 (Page 70).

Inter-Group comparison of "Expectation Gaps"

While expectation gaps have traditionally referred to those developed from audit-users, there is no reason why such gaps may not be computed from the auditor's standpoint also. Such an expectation gap would measure the expectations that auditors perceive audit-users have of them, against what auditors believe they are delivering to the community of audit-users.

The benefit of developing an inter-group difference is that it allows for a comparison of major differences in gaps between groups. Should such differences be small, this indicates that while expectation gaps do exist, the extent to which they are found, is approximately the same. On the other hand, should such differences be large, the implication is that the underlying extent of the gaps for each group is very different, suggesting also a strong dissimilarity in gaps between the groups.

While it is possible to develop, from a series of expectation gaps for a set of related issues, a global statistic that is a near-composite expectation gap on a particular audit subject, this is not likely to be practical. First because that assumes that all the issues contained within the subject have been duly considered, and second that the weight ascribed to each issue is the same, or (at best) that they are known.

Interpreting "Expectation Gaps"

It is certainly not unusual for the expectations of an individual, on a given matter, to fall short of that individual's perception of the relevant reality, as perceived by him when the reality unfolds.

Oscar Wilde is reported to have been disappointed in the Taj Mahal when he saw it for the first time, mainly because he had very "Great Expectations" about it. Extracting from that phenomenon, it would be true to state that the mere presence of an expectation gap may well only be a manifestation of unreal expectations. Thus, this research focuses not so much on individual expectation gaps, but instead on overall group expectation gaps.

Further, given that it is realistic to expect some measure of an expectation gap within any given group, on any given issue, the research focuses on not so much the mere presence of a gap, but its relative intensity (frequency) between audit-user groups (individually and in total) and (the) audit-issuer group(s).

Identification of such group differences should provide a basis to examine why they exist, and in doing so, (inter-alia) differences between the value-scales of audit-users and issuers could also become apparent.

"A priori" research expectations

As evidenced by the many references provided previously, there has been a plethora of articles and publications written by non-auditors expressing concern with EAI, (i.e. suggesting the existence of audit expectation gaps on issues contained within EAI).

On the other hand, there is little evidence of such (or similar minded) articles having been written by professional auditors themselves. Consequently, auditors do not appear to reflect possession of an expectation gap with regard to their own professional activities and in particular their own independence.

On the above premises, this research was developed with prior expectations that an analysis of its findings would reveal that (in relation to EAI):

1. audit expectation gaps are evident in audit-user groups only
2. the nature (direction) of such gaps is always negative, implying consistent dissatisfaction with EAI in relation to specified issues
3. if however, audit expectation gaps are evident within the audit-issuer group, then their relative intensity will be more severe in audit-user groups than in the audit-issuer group.

EAI and other professional deficiencies

In examining instances of (actual or alleged) impaired EAI, this research makes a (forced) distinction between the concept of EAI on the one hand, and professional negligence or incompetence on the other.

This is because some authors argue that even instances of professional incompetence can be seen in terms of deficient EAI. For example, Pearson [1987: 282] states that "an auditor who completes an engagement despite not having the level of training and experience necessary for the particular engagement is ... acting without integrity".

Thus, in Pearson's view, it is questionable how objective or independent an auditor can be, when he or she lacks the appropriate training or experience and, (additionally, in this author's view), all the required material, intellectual, and financial resources and moral (ethical) integrity.

Thus, present usage of the term external auditor independence generally assumes the existence, and due application, of all resources required to effectively complete the audit, so that EAI (perhaps artificially) is regarded in this research as a phenomenon by and in itself.

Expectation gaps underlying EAI

The subject of EAI is only one of several in the audit domain. As for all such subjects, there are several underlying issues that make up the subject in its entirety. Thus, it is more useful and pragmatic that research into EAI concern itself with these underlying issues, rather than the subject in its global totality.

On that basis, in order to assess the expectation gaps underlying some of the individual issues integral to EAI, this research examines such issues in the context of the perceptions of audit-users (and issuers) in the framework of specified auditor-auditee relationships.

Thus, the thrust of this chapter is concerned with the identification of concern with EAI (expectation gaps) in the micro-level situations outlined in the questionnaire. This examination is conducted within the main sets of (micro-level) considerations appearing to provoke concern with EAI - as stated in Chapter 6.

The next (core) section of the chapter examines views of EAI in the twenty situations and reports on how they are seen by the research groups. A discussion of related concerns is offered, and some relevant findings from previous empirical research are stated. Finally, implications for the profession are considered.

10.2 The factor approach to expectations gaps

In searching for and identifying pockets of expectation gaps, a structure similar to that used in Chapter 6 is employed. The structure provides for one or more issues to be contained within the five factors as noted below:

1. The reliance factor (i.e. the auditor's reliance for appointment and fees on the client).
   [Situations 5, 12 and 18]

2. The relationship factor (i.e. the existence of, or potential for, "cosy" relations between auditor and client).
   [Situations 1, 9, 17, 19 and 20]

3. The pressure factor (i.e. the levying of financial, professional and/or social pressure by the client or others [directly or not] on the auditor).
   [Situations 10, 11 and 16]

4. The involvement factor (i.e. the involvement in a financial and/or commercial manner by the auditor with the client by the auditor).
   [Situations 2, 4, 6, 7, 8, 14 and 15]

5. The MAS factor (i.e. the provision of non-audit MAS services by the auditor to the client.
   [Situations 3 and 13]

10.2.1 The reliance factor

Situation 5

The results of responses to this situation are interesting in that, whereas in general, the intensity of expectation gaps was least in the EA group, for this situation it was the opposite. The intensity of underlying gaps was most evident within the EA group.

While Situation 5 gave evidence of an expectation gap for all groups, the gaps were not at the extreme. Indeed, while there was "notable concern" manifest by all groups, it was only just so (i.e. at the margin) for the three user groups.

Thus, contrary to expectations, most concern with EAI in this situation was evident in the EA group, where 45% of respondents registered an expression of an expectation gap with it. Generalising, it appears that, contrary to the belief that users are most concerned with the re-appointment mechanism for auditors, it seems that auditors are more concerned on that count.

This may be partly explained by the fact that the personal economic fortunes of auditors are affected by their reappointment (or not) as auditors to companies, so that considerations based on such facts may cause them to be more concerned with EAI than audit-users.

Results for the twenty situations revealed five where auditors registered the highest levels of expectation gaps, and Situation 5 was one of them. Even more interestingly, it was observed that all the three situations (5, 12 and 18) relating to the auditor's reliance on the client, revealed greater expectation gaps by external auditors than by audit-users.

This may indicate that auditors are much concerned by their overall reliance and dependence on the audit client and, contrary to the perceived view of some, auditors may in fact welcome a detachment from this reliance. The exact form of such detachment must remain a basis for further discussion and examination.

Situation 5 revealed that auditors were more concerned with EAI in the situation where the UK subsidiary of a Fortune 100 US corporation is audited by a medium-sized 15-partner firm of auditors (not the UK associates of the Big-Eight firm auditing all other parts of the group). This may be explained by the perceived threat to continued office assuming a more "real" dimension for auditors than for audit-users. Further, consistent with the responses to most situations, the intensity of the expectation gap in the user group, was more evident in the Credit Manager (35.6%) and Internal Auditor (38.3%) groups than the Banker group (34.9%).

However, when these responses were ranked into their appropriate quartiles, they all fell into the second quartile of the gaps registered by each group. This suggests that while the bases of group expectation gaps may be different, the perceived quartile ranking of these gaps appear to be similar.

It is possible that the perceived threat to EAI may be increased by the fact that the UK audit firm concerned was a 15-partner medium sized firm, and not one of the Big-Eight firms. If so, there may well be grounds for a requirement restricting the audit of the financial statements of publicly listed companies to firms that have been specially assessed and authorised to do so.

Such a precedent already exists in the form of auditors "approved" by Lloyd's for the purpose of auditing the accounts of Lloyd's syndicates. However, instead of authorization by a non-auditing body (Lloyd's) - as in the US, it may be issued by an audit body, say, the ICAEW.

As stated above, a similar practice prevails in the US, where audit firms permitted to audit SEC-regulated corporations are specially authorised to do so by the AICPA, and must meet more stringent (financial and professional) criteria to obtain such authorization.

Situation 12

Given that audit bodies in the UK would normally find nothing ethically repugnant in Situation 12, its findings are very interesting.

Firstly, Situation 12 has the distinction of showing the highest intensity (84.2%) of any expectation gap, not only within the EA group, but also across all groups and situations.

Secondly, it also has the distinction of registering the most intense gap, across all the twenty situations, for the Banker group.

Thirdly, all the research groups (issuers and users) expressed very "notable concern" with EAI in the situation. In fact, over 64% of each of the three user groups registered traces of an expectation gap.

Within the user groups only, an expectation gap was most perceptible in the Internal Auditor group (70.5%), followed closely by the Credit Manager group (69.2%). When these responses were ranked into their appropriate quartiles, they showed good consistency, with the gaps for all these groups falling into the third quartile. As may have been expected, the comparable positioning for the EA group was into the fourth quartile.

In Situation 12, the audit firm is small and the client in question is the only listed company audited by it. Further, the revenue derived from that audit accounts for only about 10% of the firms' total billings.

Based on those facts alone, it is likely that current UK professional and ethical guidelines see no threat posed to EAI in Situation 12. Yet in contrast, each one of the four research groups registered very strong expressions of an expectation gap (EAs maximum 84.2%, minimum BAs 64.2%) in terms of the EAI considerations intrinsic to that situation.

One interpretation of these results may well be that a significant majority of respondents were not really concerned about the perceived provocation to EAI caused by a 10% fee reliance by the auditor, but rather by the fact that the audit firm was small and that the client concerned is its only listed one.

If so, it appears many respondents are in fact again suggesting, that listed companies should only be audited by a select band of audit firms, such auditors having been specially assessed and approved by an authority (be it a professional auditing body or a statutory quasi-governmental one, such as OFTEL or OFWAT).

However, if one discounts the above interpretation, then it would appear that a very significant proportion (over 60%) of both users and auditors are concerned with EAI, even in situations where there is only a 10% fee reliance, and this would suggest that the 15% cut-off suggested by the ICAEW, is perhaps not as low as is perceived to be desirable to protect external auditor independence.

The findings of this research are not really consistent with Dykxhoorn and Sinning [1982], which determined that based on a 10% fee dependency, 80% of respondents registered no apparent concern with external auditor independence, perceiving the auditor to be independent therein.

However, current findings are more along the lines of the results of Firth [1980 and 1981], where at a 15% fee dependency, the auditor was perceived by about half the respondents as not being independent, and thus EAI was a cause for concern in that situation.

Situation 18

Despite the very low level of fee dependency at the national level, the results of responses to Situation 18 revealed an expectation gap by and "notable concern" with all four research groups.

Like the other two situations (5 and 12) relating to the auditor's reliance on the client, Situation 18 also revealed EAs having highest intensity (54.6%) of gaps by any group. However strong concern was also shown by all user groups, with, on average, about 43% of each of these three groups registering an expectation gap.

Within the user groups only, an expectation gap was most perceptible in the Internal Auditor group (51.0%), followed by the Credit Manager group (44.6%) and lastly by the Banker group (34.6%). When responses were ranked into appropriate quartiles, they had good consistency, with the ranking of each of these gaps falling into the second quartile. As expected, the comparable position for the EA group was higher in the third quartile.

In terms of Situation 18, professional audit bodies in the UK would see no threat to external auditor independence provided "a partner from another office of the practice ... (took) final responsibility" [ICAEW, 1987: 20] for the audit report.

On the basis that respondents may not see a need for the above proviso (retaining confidence in EAI even when not present), the facts of Situation 18 did not specify that responsibility for the audit report was taken by a partner from another office of the practice.

Thus, given the high levels of "notable concern" and expectation gaps shown by all groups, it appears that respondents may well see the need for such a proviso. Consequently, the results of Situation 18, confirm that respondents tended to concur with the "national" and "local" office considerations, referred to by ICAEW when developing ethical guidance for UK auditors. As such, guidance should continue to refer to the proviso.

Further, given that significant concern with EAI was evoked even at a 1% fee dependency in national terms, the guidance should offer a more precise opinion with regard to the proportion that local clients may account for, in terms of revenue to the local office concerned.

10.2.2 The relationship factor

Situation 1

The continued tenure (15 years) of the auditor in Situation 1 did not appear to cause a significant undermining of confidence in EAI. None of the four research groups registered an expectation gap of "notable concern" (i.e. 35% or more of the group). In fact, this situation was the one that registered the smallest expectation gap (in terms of the twenty situations researched) for both the Credit Manager (29.1%) and Internal Auditor (33.9%) groups.

Situation 1 did not provoke a perceived significant loss of confidence in EAI for the other groups either. They registered their smallest but one expectation gap for it; External Auditors at 15.0% and Bankers at 24.7%. Thus, these findings tend to contradict Shockley's view that continued audit tenure negatively influences EAI.

The groups registered similar quartile rankings for their gaps on this situation, with three of their gaps being ranked in their first quartiles. The exception was the IA group, where it ranked in the second decile.

The present findings are in fact more consistent with Firth [1980], where about 78% of respondents considered that a ten-year tenure by the auditor would still reflect an independent auditor-auditee relationship.

Further, present findings are also broadly consistent with Firth [1981] who determined that (by itself) continued tenure of the auditor, was not a significant factor when developing perceptions of EAI.

While there was strong agreement between all groups that tenure was not in itself a factor that would impair EAI, that view was most evident in the EA group, where only 15% indicated a trace of an expectation gap.

On the other hand, while the other (user) groups shared that view, the intensity to which it was held, was about twice as strong, with on average, about 29% of each group registering traces of an expectation gap.

Based on these findings, there is only weak support for the views of those who argue for periodic rotation of auditors. Further, the findings suggest that non-rotation of auditors does not presently appear to cause a loss of confidence in EAI by UK users of audited statements. As such, moves for the auditing profession to adopt any system of rotation may be unwarranted.

Situation 9

Responses to Situation 9 showed major differences of view between the EA and BA groups on the one hand, and the IA and CM groups on the other. While notable concern with EAI was registered by all four groups, the intensity of concern across groups was not the same.

Somewhat under 40% of the EA and BA groups registered concern with EAI in Situation 9, while this was true of (at least) 50% of the other two groups. There was good rank consistency for this situation, in that the gaps of the EA and BA groups both fell in the second decile. Equally, there appeared to be consistency between CMs and IAs, both of whose gaps fell into the third decile.

The EA and all the user groups revealed expectation gaps for Situation 9. However, while the gap was present in about 38% of issuers, it was evident in (on average) about 50% of the user groups. Thus a cross-over of the audit partner from a firm to MD of audit client (while the same audit firm continues as auditors to that client) does seem to detract from EAI confidence for a majority of two of the user groups.

On that basis, it is advisable that audit bodies re-examine guidance on this issue, and, in the interim, for audit-partners to reconsider the wisdom of accepting senior positions with clients. The AICPA provides an exception for partners retiring from their firms [AICPA, 1986: 4412], in order to take employment with former clients, on the condition that they:

> "are no longer active in the firm, that the fees received from such (employing) clients do not have a material effect on (their) retirement benefits and that (they are) not held out as being associated with the former partnership."

The issue appears to revolve around the question of at what point (and how) does an audit partner cease to be part of, or associated with, his previous firm. The AICPA requires former partners be no longer "closely associated with the (audit) firm" [AICPA, 1986: 4435], and its view appears to be that such dis-association should be made evident in (at least) all the legal, physical and financial aspects.

Understandably then, a majority the audit users surveyed manifest concern with EAI in a cross-over of the audit partner from audit firm to MD of client.

Situation 17

The responses to Situation 17 revealed most concern with EAI, not by the user groups, but by the EA group. Whereas the EA group expressed least intensity of concern (38.3%), in terms of EAI, with the cross-over of staff from the audit firm to the audit client, the reverse cross-over gave rise to them expressing the most concern (55.8%) across the four research groups.

The user groups also registered gaps, but intensity was less severe. The BA gap showed some notable concern at 38.3%, while those of the CM and IA groups respectively were 46.3% and 49.6%. The magnitude of concern is revealing, as the facts clearly state that in the last four years "the partner in question had not been involved in any way with it (the client) or its audit."

One interpretation for such concern may be that these respondents considered any form of previous employer-employee relationship between the audit client and the auditor to be undesirable, with the result that EAI, in their view, will always be impaired, no matter how long ago the relationship has been terminated.

Another possible interpretation may be that respondents registering concern with the situation were in effect stating that they did not consider a period of four years to be long enough to eradicate vestiges of the employer-employee dynamics.

However, regardless of the interpretation, this result is worth noting by the relevant UK auditing bodies, who may thus either wish to severely curtail such a cross-over of staff from audit client to audit firm, or, to extend the relevant critical time period from three years to a period greater than four years.

Consistent with the more intense expectation gap manifest by the EA group, and the slightly lower gaps expressed by the User groups, the quartile positioning for the former was in the third quartile, whereas it was the second for the other three groups.

This consistency in quartile ranking confirms on the one hand, a strong uniformity in approach to this issue of EAI, between the three user groups, and a more unique approach to it by the EA group on the other.

The results strongly suggest that those concerned with EAI are more troubled by staff cross-overs from audit client to audit firm, rather than vice-versa.

Situation 20

Despite the fact that the audit partner in the present situation was not the close relative of the client's MD, concern with EAI was expressed by (at least) 53% of respondents from the CM and IA groups.

Respondents from the EA and BA groups were slightly less sceptical about EAI, with a maximum of 41% of either group registering an expectation gap in the situation. Nevertheless, in overall terms, reasonable concern with EAI was manifest, with at least a third of all groups registering a gap for Situation 20.

Again, the quartile rankings for the EA and BA groups on the one hand, and those of the CM and IA groups on the other, were much the same. The intensity of the gaps for the first two groups being ranked in the second quartile, while those of the other two groups being ranked in the third quartile.

To the extent that the present Situation 20 and Firth's [1981] Situation 8 compare, their results do not contrast favourably. Firth's analysis showed most respondents were content with EAI in situations with a family relationship between a partner in the audit firm and an employee of the client, provided the related partner played no part in the audit of the client.

However, present results revealed that, on average, at least half of each of the user groups registered some trace of an expectation gap, in Situation 20, and thus, there appears to be reasonable concern with EAI in situations such as the one above.

This appears to be so, even when the related partner is not the one responsible for the audit of the company employing a close relative of his. In the light of this it may be desirable for UK audit bodies to re-examine their stand on EAI in close family relationships.

Situation 19

The situation was developed and included for research in the belief that the perceptions of EAI by persons concerned with audited statements, may, also take some regard of the relative positions of strength and standing of the auditor and the client in question. Thus, there is essentially nothing ethically repugnant about the auditing environment, the auditor-client relationship, or the other facts of this situation.

The MD of the company in this situation is "a life peer and a leading figure in the City of London. He is [also] a director in several public companies and carries much political clout. As a consequence, he is generally regarded as a force to be reckoned with."

In short, he bears the hall marks of one who tends to achieve his ambitions and has the standing in the community to validate his actions. The director in this situation thus portrays a certain Goliath-type quality. While this itself is not necessarily disturbing, that fact, even when weighed against the relatively equal stature of a Top Ten firm of chartered accountants, may cause concern in the eyes of some respondents.

Once again, the quartile rankings of concern (expectation gaps) with EAI in this situation, for the EA and BA groups on the one hand, and those of the CM and IA groups on the other, were much the same. The gaps for the first two groups being ranked in the second quartile, while those of the other two groups were ranked in the third quartile.

In many respects, the facts of Situation 19 strongly resemble those of the affairs of Pergamon Press Limited. Both situations present a Chief Executive Officer with an impressive personality and standing.

The results of responses to this situation revealed that concern with the "powerful chairman syndrome" was least evident in EAs (31.7%), and most evident in CMs (50.6%). About 47% of the other two groups (BAs and IAs) noted a trace of concern with EAI in Situation 19.

As such, it appears that the users of audited financial statements are more concerned than EAs themselves, about EAI considerations in situations suggestive of the "powerful chairman syndrome".

EAs appear to have more confidence in their perceived ability to withstand (potential) pressure leviable on them in such situations, than the users of audited statements appear to accord to them.

One interpretation of these findings appears to be that about half the users of audited financial statements share a perceived concern over the likelihood of external auditors succumbing to pressure from strong-minded and strong-willed senior officers of their audit clients.

As such, it would be of benefit for the relevant UK auditing bodies to alert auditors to the varied types of potential pressure to which they may find themselves subjected, and to offer greater exposition and advice on how such pressures can be effectively dealt with. Along the lines of suggestions made by Benson [1983], such advice would recommend that auditors take (at least) precautions to maintain a strong independent approach in all audit matters.

10.2.3 The pressure factor

Situation 11

The issue of time pressure on the auditor as described in Situation 11 revealed traces of an expectation gap in all the four research groups. However, the intensity of the gaps was markedly different for the user groups on the one hand, and the issuer group on the other.

Thus, whereas somewhat less than 30% of the EA group registered a gap in terms of EAI for Situation 11, the comparable gap in terms of the three user groups was at least twice that (i.e. 60%). This indicates that the likely impact of significant time pressure on the EAI of auditors is seen more intensely and often by users of audited statements, than by auditors themselves.

This major difference in view is also noticeable in the fact that the quartile ranking of group expectation gaps on Situation 11, show that the relevant gaps fall into the first quartile for the EA group, but into the third quartile for the three user groups.

Situation 11 was revealing in that it also showed the highest (positive or negative) difference (for any of the twenty situations) between the average gap for the three users groups, and the EA group. As noted in Table 10.3 (Page 70), this difference was computed as 35.9%.

Auditing texts recognise that time pressure is often intrinsic and integral to the profession, though its treatment is usually limited to an acknowledgement of it, and a statement it can be professionally harmful.

However, given the major concern expressed with it by the users surveyed in this research, it would be of benefit to the profession to provide more substantive comments on the issue of time pressure, and what may or may not be considered impractical or unreasonable time expectations, when completing statutory audits.

It may however be that a part of the gaps registered by users is manifestation of a "knowledge gap". Concerns may in fact stem from their individual understanding of what an audit is and what is required to complete it.

In that case, when responses to Situation 11 are weighed against its facts, they may indicate that to many users, the only way audit duties can be duly fulfilled, is by an auditor compromising his auditing standards, which in the end is a compromise of his EAI.

If so, the profession must address itself to providing users with a good awareness of what an audit really is and involves - a suggestion made recently in Canada by the Macdonald Commission set up by the CICA [1988].

Situation 10

The responses to Situation 10 revealed reasonable harmony of perception on the issue of budget pressure across all the four research groups, as none of the groups showed "notable concern" as previously defined. In fact, within the twenty research situations, Situation 10 was the one that registered the very lowest (12.5%) expectation gap for the EA group.

However, it should also be noted that there was about a 20% difference between the (average of) expectation gaps for the three user groups on the one hand, and the same for the external auditor group on the other.

One possible interpretation for the preceding could be that EAs have intense confidence in their ability to prevail against budget pressure, as this is a factor that they have increasingly faced in recent years, and thus perhaps learnt how to handle very effectively.

If so, it is equally true to state that the users of audited financial statements do not appear to share the same intensity of confidence. On average, about one third (29.2%) of these three groups expressed some degree of concern (gap) about the relevant auditor's independence, when he is the subject of significant budget pressure by the client.

However, as for many of the twenty situations, the quartile rankings for Situation 10 revealed consistency between the EA and BA groups on the one hand, and the IA and CM groups on the other.

Additionally, in general, the extent of the gap was not very intense in the first two groups, as their gaps fell within the very first quartile. The extent of concern expressed by the other two groups was more severe, as their gaps fell into the second quartile.

A possible explanation for this may be that such differences of perception are in fact a manifestation of a knowledge gap (i.e. varying cognitive bases).

Thus, if users of audited statements are generally more concerned about the effect of budget pressure on EAI, than external auditors themselves, it will serve the audit profession well to address itself to these concerns, and in response, issue its understanding of the nature of budget pressure, and details of the mechanisms developed so as to deal with it effectively.

Publication of such information will help permit users of audited statements to share the same knowledge base on the issue, and in so doing eliminate, or at least reduce, the underlying (perceptual) expectation gap.

Situation 16

In general, Situation 16 did not evoke significant concern in an EAI context. The two groups that did register notable concern, only did so marginally, at 37.0% for BAs and 43.4% for IAs. The other two research groups did not register notable concern, and their relevant ratios were 32.6% for external auditors and 34.0% for credit managers.

However, while all research groups did reveal a measure of concern with EAI in Situation 16, the situation also revealed a degree of underlying consistency in that concern, as the relevant ranking of the expectation gaps for all four groups fell into the second quartile.

In fact, the net gap difference between the average of the three user groups, and the same for the issuer group, was the second lowest of all twenty situations.

The facts of Situation 16 do not specifically state that responsibility for the audit in question was taken by a partner from another (associated) practice, even though ICAEW guidelines would require such procedure.

Nevertheless, despite such non-adherence, there did not appear to be any dramatic expression of concern with EAI in the situation.

Thus, assuming that respondents did not themselves assume the adherence of the practice referred to above, this may indicate that the research groups do not see an absolute need for final audit responsibility to be taken by an audit partner from another (associated) practice.

Nevertheless, this is not to suggest that the ICAEW's present approach on the matter should be in any way relaxed. However, an analysis of responses to this situation also needs to consider the fact that the audit firm in question is one of the Top Ten firms in the UK.

Thus, it would be of interest to note whether responses would have been radically different if the firm in question were (instead) a small four-partner practice, with the office in the small provincial town being its only one.

However, based on the findings revealed in the present analyses, it would be fair to conclude that when the audit firm is one of the Top Ten, then (given the assumption within the first paragraph of this page) the impact of local considerations and profile do not appear to have a strong adverse effect on views of EAI, by issuers or users of audited statements.

10.2.4 The involvement factor

Situation 6

Interestingly, the results showed that the only group not to reveal notable concern with EAI in Situation 6 was EAs. In this regard and to varying degrees, more than 35% of each of the other three (user) groups registered an expectation gap (of notable concern).

The banker group expressed only a marginal level of notable concern (39.5%), and the credit manager group did so unequivocally, (66.8%). About half (53.2%) of the IA group expressed a level of concern with EAI in the situation.

Thus, on average, about half (also 53.2%) of each of the three user groups registered concern with external auditor independence in Situation 6. In striking contrast, the External Auditor group registered a much more optimistic position on the issue, with only about a third (31.9%) of them sharing such concern.

Again, it would appear that auditors themselves have a much greater confidence of their ability to withstand types of pressure (in this instance, financial involvement with the client) on their external auditor independence, than that indicated by the three other research groups who (inter alia) use EA services.

The general consistency in approach to EAI between the EA and BA groups was evident in this situation also, as was the same between the CM and IA groups. The (second) quartile rankings of the first pair were the same, as were the (third) quartile rankings for the second pair.

Continued non-payment of (material) fees to the auditor **does** evoke concern in the eyes of some users of audited statements. As such, UK audit bodies may be well served by addressing the issue more formally and specifically, as has the AICPA. There is clear but varying concern with EAI in the circumstances of situation 6.

Situation 2

Findings revealed by this research suggest that when (material) consulting fees remain unpaid to the consultancy arm of a company's auditors (Situation 2), they do not cause as much concern with EAI, as when (material) audit fees remain unpaid to the firm of auditors itself (Situation 6). In fact, with the exception of the IA group, Situation 2 appeared to evoke about 10% less concern than did Situation 6.

Situation 2 also revealed an element of quartile rank consistency between the EA and BA groups on the one hand, and considerable consistency between the CM and IA groups on the other.

The rankings for the first pair of groups was first and second quartile respectively, while that of both groups in the second pair was the third quartile.

As may be inferred from the above, the issues contained within Situation 2, when assessed in terms of external auditor independence, were of considerably more concern to credit managers and internal auditors than external auditors and bankers.

More than half of the first two groups showed a trace of concern with EAI in the situation, while the comparable statistic for the other two groups was only about one-third.

Thus, while the external auditor independence issue embodied in Situation 2 was of concern to all groups, the extent of that concern was much more evident in the CM and IA groups. As such, UK audit bodies should address and take note of the issue more fully in their ethical pronouncements.

If these bodies do not wish to lay down all-embracing rules on the issue, then guidance in the form of hypothetical situations and appropriate answers (as has been done by the AICPA) would go to some lengths to address these concerns.

Situation 8

Responses to Situation 8 showed that overall, there was no **overwhelming** concern with EAI when a partner in an audit firm held 7% of the voting equity in a listed company, to which his firm acts as auditors, **provided** the partner concerned did "not participate in any way in the audit of the company, and his shareholding is clearly stated in the company's annual accounts."

However, it would be incorrect to conclude that the situation evoked no concern with EAI. While two of the groups did not register notable concern (35% or over), CM and IA groups at 44.3% and 37.5% respectively, did. In this regard, these results are broadly in line with those of Firth [1980], where it was determined that in a similar situation, concern with EAI was registered by at least 60% of the user groups then surveyed.

Further, the present results showed broad rank consistency within each group's expression of concern for this situation, with the related ranking for all groups being positioned in the second quartile. While the responses to Situation 8 do not suggest overwhelming unease with EAI in it, the fact that any level of discomfort at all was registered in that situation should be of concern to UK auditing bodies.

For, if about one-third of all the present research groups (including external auditors themselves), note some unease with EAI when auditors hold an "immaterial" quantity of trustee shares in clients not specifically audited by them, then a possible inference must be that 33% of respondents judge inter-partner relationships to be strong enough to influence EAI in audits.

Thus, in the interests of higher ethical standards, these users of audited financial statements would presumably welcome the termination of the holding of such (trustee) shareholdings by auditors.

The position certainly warrants closer examination by the ICAEW and other UK audit bodies, at least on the basis of the concern it evokes in users and the fact that the practice is considered unethical in the US.

Situation 15

The situation appeared to evoke considerable concern with EAI, as about half of all the three user groups and the external auditor group as well, registered some discomfort with it therein. Most concern (55% of both groups) was expressed by credit managers and external auditors. The situation evoked somewhat lesser concern with IAs (53%) and considerably less concern with BAs (41%).

In general, respondents appeared to be more concerned with EAI in this situation compared to Situation 8. Per Table 10.3 (Page 70) one notes that the average of user groups expressing concern with EAI in Situation 8 was some 11% less than that for Situation 15. The contrast is even more perceptible for the EA group, where the comparable difference was about 23%!!!.

One inference must be that users and issuers of audited financial statements see the more direct audit involvement in the situation where the auditor is a director of the investment trust (with an immaterial shareholding in a listed company for which the auditor is the audit partner responsible), to be more EAI-impairing when compared to the situation where a trustee holds only 7% of the shares in a listed company audited by a firm, and in which the trustee-partner takes no part in the audit. Presumably, it is this active audit involvement by the trust-director that heightens concern with EAI.

Responses were also interesting in that the ranking consistency between the EA and BA groups, evident in many of the twenty situations, was not apparent in this situation. Whereas concern expressed by the latter group ranked in the second quartile, that for all the other three groups fell into the third quartile.

The present results were in some accord with the findings of Lavin [1977], where he assessed EAI in a situation similar to Situation 15. Both findings showed EAs to be more concerned about EAI than user groups. In Lavin's study 84% of users and 63% of auditors saw the auditor as "independent". In this research, the comparable statistics were 55% and 50% respectively.

Further, to the extent that the director-trustee takes part in the audit in both situations, their results are more comparable to each other, than with Firth [1980], where the auditor does not take part in the audit.

One implication for the profession must be that users fears about EAI are evoked when the auditor takes in active role in the audit and concurrently acts as a director of the trust, even though the relevant shareholding may not be material. UK audit bodies may wish to consider allowing for such concern in any revised ethical code.

Situation 14

Lowballing in the context of EAI appears to cause serious concern with both issuers and users of audited financial statements. At least half of all the four research groups expressed a trace of concern with EAI in Situation 14, where lowballing has been practised.

As was the case for many of the twenty research situations, the concern expressed by the CM and IA groups were more akin, as their quartile rankings on the issue were both placed within the third quartile. Indeed, the concern expressed by the CM group for this situation was the most intense of all the twenty research situations, with 80.7% of that group registering an expectation gap for it. Comparable concern expressed by the IA group was also high, with 71.3% of them registering an underlying gap.

The intense concern registered by these two groups caused their individual expectation gaps to fall within the (highest) fourth quartile. Concern noted by the EA and BA group was very akin to each other, with their gaps ranking in the end margin of the second (almost third) quartile, and third quartile respectively.

While 49.8% of EAs expressed a level of concern with EAI within the practice of lowballing, the BA group noted a slightly higher level of concern at 56.8%.

The strong intensity of concern registered by all the four research groups should be taken note of by the UK auditing profession. It would serve the profession well to know the specific reasons why users (and issuers) register concern with lowballing in terms of EAI.

In the light of such reasons, the auditing profession should make a formal pronouncement on the ethical aspects of lowballing, in order to provide relevant guidance to its members. If the practice is seen to be ethically acceptable (as suggested by DeAngelo, 1981b), then audit bodies should formally state their reasons for that view. If, on the other hand, it is found to be not acceptable, then the profession should identify those circumstances that may constitute lowballing.

Regardless, lowballing appears to be a major concern to some groups associated with audited statements, and so, as long as it is not formally addressed by the audit profession, there will be some deprecation of its (the profession's) independence and integrity by some users.

Situation 4

An analysis of the responses to Situation 4 revealed very significant concern with EAI in relation to it. Roughly 60% of all the four research groups registered such concern. Very intense concern was expressed by CMs and IAs. Respectively, 80.7% and 82.1% of these groups noted a trace of an expectation gap. The comparable percentages for the EA and BA groups were somewhat lower at 62.5% and 59.2%. Overall, 74% of each of the three user groups registered concern with EAI in the situation.

Once again, the similarity in quartile ranking of the expectation gaps on Situation 4, as revealed by the EA and BA groups (third) was the same, as was that for the CM and IA groups (fourth).

Very strong concern with external auditor independence in Situation 4 was registered by two of the three user groups researched - Internal auditors and Credit managers. In fact, in relation to all the twenty research situations, it was this situation that bore the distinction of registering the very highest level of intensity for both these two groups. The intensity of concern expressed by these groups, in relation to the other nineteen situations, was not as severe as that in Situation 4.

Concern with EAI in Situation 4 as expressed by the EA and BA group, when ranked, was also relatively very high, with it being ranked second and third highest respectively out of all the twenty research situations.

Thus, there is good basis to conclude that both users and issuers of audited statements are caused much discomfort with external auditor independence in situations where the auditor enters into a trade relationship on perhaps more favourable terms than those offered to other customers.

As such, the ethical position of the ICAEW appears to be vindicated. However, given that trade relationships evoked considerable concern in all respondents, it would be well served to clarify the auditor's position in a variety of hypothetical trade relationships, each with its own set of facts, implications and nuances.

Situation 7

There did not appear to be very strong concern with EAI expressed by the majority of respondents from all the four research groups. More than 54% of respondents from each group displayed no concern at all with the underlying potential threat to EAI in Situation 7.

Nevertheless, to the extent where concern was in fact displayed, it was more manifest in CM and IA groups, than EA and BA groups. At least 45% of each group in the first pair showed some concern with EAI in Situation 7, whereas the comparable ratio for the second pair was only 21%.

Together with many of the twenty situations, Situation 7 revealed good quartile rank consistency, on the same pattern of grouping as stated above. The ranking of both groups in the first pair stated above was in the first quartile, whereas that of both groups in the second pair was in the second quartile.

Given the relatively modest concern with EAI currently detected in Situation 7, the present findings are similar to those of some previous empirical researchers [Lavin, 1976 and 1977, Firth, 1980 and Dykxhoorn and Sinning, 1981b and 1982] into this issue within an EAI context. However, only slightly more concern with EAI was revealed by users responding to this present research - (previous research 35%, this research 38%).

The concern with external auditor independence registered by respondents was consistently less for Situation 7 than for Situation 4, which related to another type of commercial arrangement (for all printing and stationery needs) made between an auditor and his client. This may well suggest that not all types of trade (commercial) arrangements between an auditor and his client are uniformly seen in EAI terms by those associated with audited statements.

However, one reason why the facts of Situation 7 may not have evoked considerable or consistent concern with respondents could be that the lease agreement described therein (between the auditor and client) specifically stated that it was drawn up on an "arms length basis". In contrast, Situation 4 did not specifically state that the printing and stationery arrangement was on the same basis.

If so, that distinction appears to be of helpful consequence to the users of audited statements, so that the relevant guidance issued by the ICAEW (and other UK auditing bodies) should specifically reiterate that transactions between auditors and their audit clients, where necessary and permissible, should be only and strictly on an arms length basis.

10.2.5 The management advisory services factor

Situation 3

Situation 3 deals with an audit firm providing certain accounting and/or record keeping services (essentially the preparation of the annual financial statements) to a small (private) corporate client, in addition to performing the annual audit.

The present findings revealed that the provision of accounting services to a private company caused no notable concern with EAI for the EA and BA groups. Less than 30% of these two groups registered any trace of concern at all with EAI in the situation.

However the CM and IA groups expressed greater concern with EAI in Situation 3. Respectively, 50.3% and 63.7% of these groups noted a degree of underlying EAI concern. Thus, more than half these two groups appear to share some level of an expectation gap on the issue.

The lack of underlying concern with the EA and BA groups is also evidenced by the quartile ranking of both these groups falling into the first (lowest) quartile. Equally, the more intense concern expressed by the CM and IA groups is seen in their corresponding quartile ranking falling into the third quartile.

While the profession may take comfort on its stand on this issue from the generally weak concern manifest by the EA and BA groups, this is no real cause for overall complacency.

Firstly, because some level of concern was in fact expressed by all the four research groups. Secondly, because more than half the CM and IA groups (and on average, just under half of all three user groups) registered some concern with EAI when accounting services are (concurrently) provided by the auditor.

This concern is particularly disturbing in that the services referred to in Situation 3 were only to prepare "the annual financial statements". Further, the concern expressed by IAs and CMs when interpreted may mean that these groups do not wish to see any involvement at all by the audit profession in the creation and preparation of financial statements which they subsequently audit.

In terms of user perceptions, the results of this research do not really echo those of the Firth [1980] study, where as much as 80% of users registered concern with the professional independence of the relevant auditor.

On the other hand, neither do they echo those of the Dykxhoorn and Sinning [1982], study where only 30% of the user groups expressed concern with underlying EAI in similar circumstances.

However, present findings do resemble the results of Lavin's [1976] study, wherein a total of 47% of users of audited financial statements expressed their discontent with the same professional auditor preparing the client's financial statements and then auditing them.

However, whereas 64% of the External Auditor group in the Lavin [1976] study registered some concern with auditor independence in a similar situation, as did 58% of that group in the Dykxhoorn and Sinning [1981b] study and 36% in the Firth [1980] study, this research revealed significantly less concern with the underlying EAI issue, in that only about 21% of the External Auditors surveyed registered a level of concern with EAI in the comparable situation.

This present research indicated notable concern (an average of 47% of all such groups) with external auditor independence by user groups, when the auditor also prepares the financial statements for audit, and rather limited concern (21%) by professional auditors themselves.

On that basis, auditors appear to have strong faith in their own ability to retain their professional independence when providing related accounting services. The fact that these services also provide fee income does not appear to colour their perceptions of their own EAI.

Internal Auditors in particular appeared very concerned with EAI in Situation 3. More than 60% of them expressed some measure of an expectation gap, in terms of EAI, therein.

Thus, given the related strong concern (on average 47% of each of the groups) perceived by user respondents, and that the whole basis of EAI is credibility in the eyes of the users of auditing services, the UK audit profession may wish to reconsider the desirability of continuing to permit professional auditors (in the case of private companies only), to both prepare and then audit the relevant financial statements.

Situation 13

In a situation, very like the present Situation 13, described by Firth [1980 and 1981], the facts clearly stated that the consulting and audit arms of the firm concerned were maintained separately and autonomously. Thus, some (if not all) respondents may have assumed no separateness and/or clear cut staffing of the firm's consulting and auditing activities. If so, that assumption may well have influenced for the worse, underlying perceptions of EAI in that situation.

However, disregarding this basic difference in facts between Firth [1980] and Situation 13 of this research, one finds that both users and issuers of audited financial statements now appear less troubled (or pessimistic) by the dual provision of MAS and audit services than in 1980.

Firth's 1980 study concluded that (at least) 60% of all users saw the auditor in the relevant (and similar) circumstances to be non-independent. The comparable statistic for this research was only 48%.

Firth concluded that 41% of the auditors surveyed in his 1980 study perceived the auditor in the equivalent situation to be non independent, whereas the comparable statistic in this research was higher at 24.2%.

Finally, whereas (at least) 61% of all users in the Firth [1980] study concluded that the auditor in like circumstances would be not independent, this research showed the same statistic to be just under 50%.

It may be that there has been some evolution in perceptions of EAI (within a MAS provided situation) since 1981, as in the main, respondents to this survey do not appear to be as troubled by it as those of the respondents to Firth's [1981] survey. This is not to infer that there is no concern with EAI evident by respondents to the present research. Both issuers and users registered varying degrees of concern with EAI in Situation 13.

The results showed that, as with the majority of the twenty situations researched, the EA group held the more optimistic assessment of EAI, with only about a quarter registering an underlying expectation gap. In contrast, on average, somewhat less than half of the three user groups expressed a comparable gap.

Again, there was consistency in the ranking of group gaps, with those of CMs and IAs falling into the third quartile. The weaker concern with EAI displayed by the EA and BA groups is seen in their respective ranking in the first and second quartiles.

The dual provision of MAS and audit still evokes a lack of confidence in EAI with about half the users of audit services, and that lack must be considered afresh by the audit profession.

10.3 Chapter summary

EAI is a multi-faceted subject, containing many several related issues. Given that it is an immense task to obtain perceptions of all these issues, this research has focused on only twenty aspects of the issue.

However, in addition to encompassing the classifying set as spelt out by the ICAEW [1987], the scope of these twenty issues is wide, and so there is basis to believe they are representative of EAI-related issues.

An important finding obtained is the fact that (with the exception of five situations - 1, 2, 3, 10 and 13 for the External Auditor group, and two situations - 1 and 7 for the Banker group), the underlying external auditor independence issue within each of the twenty situations provoked, on average, more concern with, than assurance in, the auditor's independence.

This is because in all these situations, the mean refined response was a negative value, indicative of at least some concern with EAI.

Admittedly, that level of concern varied from a high of -1.78 (Situation 4 for Internal Auditors) to a low of -.05 (Situation 15 for Ext. Auditors). As such, each of the twenty EAI situations evoked some level of concern in at least one of the four research groups.

The second phenomenon that comes to light is the fact that, in general, concern with EAI was highest among the Credit Manager and Internal Auditor groups (i.e. they revealed the widest - most negative - expectation gaps). Concern was not as strong or widespread within the External Auditor and Banker groups (i.e. their comparable expectation gaps were not as wide).

When ranked, in terms of extent and consistency of concern (highest to lowest), towards the twenty situations, groups ranked as IAs, CMs, BAs and EAs.

It is difficult to conclude that concern with external auditor independence was predominant or more evident in situations that embodied classifications (for example, that suggested by ICAEW [1987]) of some precise related issues, pertinent to EAI. Concern was evident across all these classifications. As such, it is likely that EAI issues are viewed on an individual issue by issue basis, rather than within categories of classification underlying their basis.

The lowest concern manifest was with Situations 1 (auditor with 15 year tenure) and 10 (auditor under budget pressure). This conclusion is drawn from the fact that when ranked, the mean refined response for these situations were (with one exception) either the last or second last to be ranked for all four groups.

On a similar basis, but at the other end of the rankings, concern appeared to be highest among Situations 4 (auditor having a printing and stationery agreement with his stationer client), 12 (auditor reliant on one client for 10% of his total fee income) and 14 (auditor lowballing).

The third phenomenon manifest was that the views (expectation gaps) of CMs and IAs tended to echo each other more closely, as did those of BAs and EAs. This is substantiated by the fact that when the intensity of group concerns for each of the twenty situations was ranked (Table 10.6 on Page 73), the rankings of the first pair were the same for ten of them (i.e. Situations 1, 4, 5, 10, 11, 12, 14, 15, 17 and 20).

On the same basis, rankings for the second pair were the same for 3 of them (Situations 1, 9 and 12). This would suggest an element of consistency in approach to EAI issues between these pairs of groups.

Examining how the 'a priori' expectations were met (or not met), one observes that with respect to each of the twenty research situations:

1. contrary to derived anticipations, expectation gaps were detected not only for the user groups, but also for the audit issuer group.

This suggests that in certain instances, it is not only the expectations of the users of audited statements that are left partially fulfilled. Issuers of audit reports, in some instances, also appear to have their audit expectations only partially fulfilled.

2. contrary to derived anticipations, the direction of expectation gaps (both users and issuers) was not only negative - all twenty situations revealed instances of a level of a positive expectation gap.

This suggests that the same facts and criteria about an audit environment can trigger off both expectation gaps and areas of over-satiation. In other words, in audit expectation terms, facts that may cause a gap to some, may well cause more than satisfaction to others.

3. consistent with anticipations, where (negative) gaps were evident, their intensity was always greater for user groups than for the issuer group.

This suggests that, where evident, the extent of audit dissatisfaction was greater among users than issuers.

This chapter has confined itself to examining gaps within twenty EAI-related situations. The basis underlying the possible existence of expectation gaps was assessed in the first section of the chapter. A later section concerned itself with an identification of such expectation gaps. Some conclusions were drawn from these findings, and their implications for the auditing profession considered.

Concern with expectation gaps in the auditing is current. In July 1991, Lord Alexander, Chairman of National Westminster Bank drew attention to the fact that both bankers and auditors have duties to the public, and that if both professions "continued to fail to meet public expectations, government would be forced to step in" and initiate legislation ["Profession told of legal threat" - Accountancy Age, July 11, 1991: 4].

The existence of expectation gaps is now well accepted. This chapter has offered quantified proof of these gaps - as reflected by three groups of audit users. The next chapter identifies (statistically) significant differences of views on EAI between each of the issuer group and each of the three user groups individually.

TABLE 10.1

% OF GROUPS EXPRESSING CONCERN RE. EAI IN SITUATIONS

Sitn.	External Auditors	Bankers	Credit Mgrs.	Internal Auditors	All Groups
1	15.0	24.7	29.1	33.9	27.9
2	27.5	35.8	59.8	51.8	48.6
3	20.8	27.1	50.3	63.7	47.4
4	62.5	59.2	80.7	82.1	75.5
5	45.0	34.9	35.6	38.3	38.1
6	31.9	39.5	66.8	53.2	52.7
7	26.6	21.0	45.1	44.2	38.8
8	31.7	34.6	44.3	37.5	38.5
9	38.3	39.5	57.3	51.6	49.9
10	12.5	27.1	33.6	34.7	29.6
11	29.2	63.0	68.3	64.0	59.4
12	84.2	64.2	69.2	70.5	71.7
13	24.2	39.5	51.3	58.9	48.0
14	49.2	56.8	80.7	71.3	69.1
15	55.0	40.8	55.8	53.0	52.9
16	32.6	37.0	34.0	43.4	37.5
17	55.8	38.3	46.3	49.6	48.2
18	54.6	34.6	44.6	51.0	47.5
19	31.7	46.9	50.6	47.4	45.7
20	39.2	40.7	57.4	53.6	50.9

TABLE 10.2

% OF GROUPS EXPRESSING NO CONCERN RE. EAI IN SITUATIONS

Sitn.	External Auditors	Bankers	Credit Mgrs.	Internal Auditors	All Groups
1	85.0	75.3	70.9	66.1	72.1
2	72.5	64.2	40.2	48.2	51.4
3	79.2	72.9	49.7	36.3	52.6
4	37.5	40.8	19.3	17.9	24.5
5	55.0	65.1	64.4	61.7	61.9
6	68.1	60.5	33.2	46.8	47.3
7	73.4	79.0	54.9	55.8	61.2
8	68.3	65.4	55.7	62.5	61.5
9	61.7	60.5	42.7	48.4	50.1
10	87.5	72.9	66.4	65.3	70.4
11	70.8	37.0	31.7	36.0	40.6
12	15.8	35.8	30.8	29.5	28.3
13	75.8	60.5	48.7	41.1	52.0
14	50.8	43.2	19.3	28.7	30.9
15	45.0	59.2	44.2	47.0	47.1
16	67.4	63.0	66.0	56.6	62.5
17	44.2	61.7	53.7	50.4	51.8
18	45.4	65.4	55.4	49.0	52.5
19	68.3	53.1	49.4	52.6	54.3
20	60.8	59.3	42.6	46.4	49.1

TABLE 10.3

% USERS/ISSUERS EXPRESSING CONCERN RE EAI IN SITUATIONS

Sitn.	User * Group (1)	Ext. Auditor Group (2)	Gap - Users & Auditors (1-2)
1	29.2	15.0	14.2
2	49.1	27.5	21.6
3	47.0	20.8	26.2
4	74.0	62.5	11.5
5	36.3	45.0	(8.7)
6	53.2	31.9	21.3
7	36.8	26.6	10.2
8	38.8	31.7	7.1
9	49.5	38.3	11.2
10	31.8	12.5	19.3
11	65.1	29.2	35.9
12	68.0	84.2	(16.2)
13	49.9	24.2	25.7
14	69.6	49.2	20.4
15	49.9	55.0	(5.1)
16	38.1	32.6	5.5
17	44.7	55.8	(11.1)
18	43.4	54.6	(11.2)
19	48.3	31.7	16.6
20	50.6	39.2	11.4

* Average of Banker, Credit Mgr. & Int. Auditor Groups

TABLE 10.4

RANK OF SITUATIONS BASED ON THEIR GROUP MEAN LEVELS OF CONCERN WITH OR ASSURANCE IN EAI (CONCERN TO ASSURANCE)

Sitn.	External Auditors	Bankers	Credit Mgrs.	Internal Auditors	All Groups
1	19	20	20	19	20
2	16	12	6	11	11
3	17	17	12	3	10
4	2	3	1	1	1
5	8	14	17	18	16
6	12	6	5	8	6
7	15	19	15	15	16
8	10	16	14	17	15
9	9	10	8	8	7
10	20	18	19	20	19
11	12	2	3	5	4
12	1	1	4	3	3
13	17	8	10	6	12
14	6	4	2	2	2
15	3	11	9	6	5
16	11	13	18	16	18
17	4	7	13	13	9
18	5	14	16	12	13
19	14	5	11	14	14
20	7	8	7	10	7

TABLE 10.5

RANKED MEANS OF REFINED GROUP RESPONSES TO SITUATIONS ^

Rank	EAs		BAs		CMs		IAs		All	
	1a	1b	2a	2b	3a	3b	4a	4b	5a	5b
1	-1.63	12	-1.04	12	-1.73	04	-1.78	04	-1.56	04
2	-1.16	04	-1.00	11	-1.68	14	-1.33	14	-1.29	14
3	-0.98	15	-0.95	04	-1.29	11	-1.17	03*	-1.22	12
4	-0.85	17	-0.90	14	-1.14	12	-1.17	12*	-0.96	11
5	-0.80	18	-0.49	19	-1.11	06	-1.02	11	-0.81	15
6	-0.64	14	-0.48	06	-0.91	02	-0.85	13*	-0.76	06
7	-0.47	20	-0.46	17	-0.87	20	-0.85	15*	*-0.71	09
8	-0.38	05	-0.43	20*	-0.85	09	-0.83	06*	*-0.71	20
9	-0.35	09	-0.43	13*	-0.82	15	-0.83	09*	-0.64	17
10	-0.28	08	-0.42	09	-0.73	13	-0.76	20	-0.63	03
11	-0.18	16	-0.41	15	-0.66	19	-0.75	20	-0.62	02
12	-0.13	11	-0.36	02	-0.61	03	-0.69	18	-0.60	13
13	-0.12	06	-0.26	16	-0.58	17	-0.66	17	-0.56	18
14	-0.10	19	-0.21	18*	-0.55	08	-0.60	19	-0.52	19
15	-0.05	07	-0.21	05*	-0.49	07	-0.45	07	-0.42	08
16	0.07	02	-0.19	08	-0.43	18	-0.44	16	*-0.34	05
17	0.08	03*	-0.07	03	-0.30	05	-0.43	08	*-0.34	07
18	0.08	13*	-0.06	10	-0.27	16	-0.41	05	-0.32	16
19	0.42	01	0.03	07	-0.18	10	-0.25	01	-0.08	10
20	0.43	10	0.07	01	-0.09	01	-0.22	10	-0.04	01

^ = Columns 1 to 5: a = Group Mean : b = Situation No.

* = Tie on another situation, also so noted.

TABLE 10.6

RANKED % OF GROUPS CONCERNED WITH EAI IN SITUATIONS ^

Rank	EAs		BAs		CMs		IAs		All	
	1a	1b	2a	2b	3a	3b	4a	4b	5a	5b
1	84.2	12	64.2	12	80.7	04*	82.1	04	75.5	04
2	62.5	04	63.0	11	80.7	14*	71.3	14	71.7	12
3	55.8	17	59.2	04	69.2	12	70.5	12	69.1	14
4	55.0	15	56.8	14	68.3	11	64.0	11	59.4	11
5	54.6	18	46.9	19	66.8	06	63.7	03	52.9	15
6	49.2	14	40.8	15	59.8	02	58.9	13	52.7	06
7	45.0	05	40.7	20	57.4	20	53.6	20	50.9	20
8	39.2	20	39.5	06*	57.3	09	53.2	06	49.9	09
9	38.3	09	39.5	09*	55.8	15	53.0	15	48.6	02
10	32.6	16	39.5	13*	51.3	13	51.8	02	48.2	17
11	31.9	06	38.3	17	50.6	19	51.6	09	48.0	13
12	31.7	08*	37.0	16	50.3	03	51.0	18	47.5	18
13	31.7	19*	35.8	02	46.3	17	49.6	17	47.4	03
14	29.2	11	34.9	05	45.1	07	47.4	19	45.7	19
15	27.5	02	34.6	08	44.6	18	43.4	16	38.8	07
16	26.6	07	34.6	18	44.3	08	44.2	07	38.5	08
17	24.2	13	27.1	03*	35.6	05	38.3	05	38.1	05
18	20.8	03	27.1	10*	34.0	16	37.5	08	37.5	16
19	15.0	01	24.7	01	33.6	10	34.7	10	29.6	10
20	12.5	10	21.0	07	29.1	01	33.9	01	27.9	01

^ = Columns 1 to 5: a = % of Group : b = Situation No.

* = Tie on an(other) situation(s), also so noted.

CHAPTER XI

SIGNIFICANT GROUP DIFFERENCES IN PERCEPTIONS OF EXTERNAL AUDITOR INDEPENDENCE

The purpose of this chapter is to identify and discuss significant group differences in perception of EAI, as revealed by the refined responses to the twenty questionnaire audit situations. In considering such differences, the chapter confines itself mainly to the use of the (parametric) t-test and the (non-parametric) Mann-Whitney (M-W) test.

The chapter has two main sections. In the first section, significant differences <u>between</u> the external auditor group and, in turn, each of the three user groups (bankers, credit managers and internal auditors) are identified and assessed.

In the second section, significant differences <u>within</u> the external auditor group (determined on Big-Six v. nonBig-Six auditors and partners v. non-partners classifications) are identified and assessed.

In identifying and considering both sets of these significant differences, regard is paid to testable phenomena derived from implications flowing out of Agency Theory (AT).

11.1 Inter-group perceptual differences of EAI

Agency theory and inter-group perceptions of EAI

Agency theory contends that the inherent conflicts between "principals" and "agents" are caused by an asymmetry in their respective funds of information, knowledge, or both; so that agency information must then be "monitored" and/or confirmed by an "independent" person [Baiman, 1989]. To provide this service, AT puts forth the auditor as such an independent person [Watts and Zimmerman, 1986: 312].

So, as previously stated, the very basis on which the services of the auditor is engaged, is professional independence. Without independence the auditor would be of little or no professional value, and have no role to play within AT. Furthermore, external auditor independence thus becomes pivotal to agency theory.

Indeed, AT contends that auditors will be and remain independent so as to first establish and then exploit (good) "reputation" effects [Benston, 1975], and in so doing serve their own economic "self-interest".

For, if it became evident (known) that an auditor were not acting independently, no monitoring contracts would be offered him, and in time he would be unable to earn a living as an auditor [Watts and Zimmerman, 1981].

Consequently, agency theory suggests that even without the backdrop of professional ethics or statute, in general, professional auditors will be truly independent and hold themselves out to be so.

As consequential evidence of the above, Watts and Zimmerman [1981] present the fact that audits were conducted in the twelfth and thirteenth centuries - a time when audits were not statutorily imposed, but yet often performed by professional auditors.

Thus, as a further consequence of their perceived EAI, auditors tend to view themselves as being truly independent ["Big will be beautiful as Europe opens up" - Financial Times, September 13, 1990: 12].

Equally, individual users (and thus user groups as well) must generally see the auditor as independent, or else they would not use his services. By construction therefore, AT implies that in general, users of audit services will tend to have perceptions of EAI, similar to those held by auditors about their own EAI.

If so, there should be no significant differences between perceptions of this issue between the User Groups (both individually and collectively) and those of External Auditors themselves (the Issuer Group).

In summary, AT supports the view that the auditing profession depends not only on it being independent in fact, but also on it being seen to be independent. This is because within AT, the perception of professional EAI is as important as (if not more than) the substance of it.

Equally, while AT does not confirm or reject the assertion that differential perceptions of EAI may exist, it implies an identity or near-identity of them, as seen by auditors and the users of their services.

Thus, an objective of this research was to determine if the selected research groups indeed had similar or differing perceptions of EAI between the Issuer Group and, in turn, each of the User Groups. To achieve this, response sets to the situational questions and the MLC question in the questionnaire, were examined to see if, in turn, they were significantly different between each of the three User Groups and the Issuer Group.

<u>The MLC Response</u>

In addition to assessing significant refined response differences between the External Auditor group and the three audit user research groups, the same assessment was undertaken for their responses to the Minimum Level of Confidence (MLC) question [Appendix B: 254].

The MLC question was a general one in the questionnaire asking the respondent to indicate what he/she considered to be "the MINIMUM LEVEL OF CONFIDENCE in the independence of external auditors that users of audited financial statements may justly demand?"

When referring to significant response differences in the tables integral to this chapter, those that are, are indicated by S, while those that are not, are indicated by NS. In the context of this chapter, significance is consistently tested at the 0.05 level.

As stated in Tables 11.1 and 11.2, the responses provided to the MLC question by all the other groups were consistently and significantly different from those of the External Auditor group and so it is true that the MLCs of all User Groups were significantly different from that of the External Auditor Group.

Having observed consistent significant differences between the MLC indicated by External Auditors on the one hand, and each of the User Groups in turn, it was of interest to note the nature of these differences. In every case, the mean MLC registered by the External Auditor group was higher than that of the three User Groups. The mean MLC for the EA group was 4.29, whereas that of the three User Groups ranged from 3.87 to 4.02.

This would imply that in general, Bankers, Internal Auditors and Credit Managers are willing to tolerate lower levels of confidence in EAI than External Auditors are willing to permit themselves.

In turn, this may well imply that auditors are willing to maintain more stringent standards of professional independence than that deemed necessary by the three User Groups participating in the research.

Equally interesting was the fact that the mean MLC response for the EA group had the lowest Standard Deviation (0.78) of all the four research groups, suggesting the least degree of variability (and more consistency) in this response within EAs than within the User Groups, where the SD ranged from 0.89 to 0.92.

<u>Significantly differing inter-group refined responses</u>

The MLC question was posed to obtain a "personalised" measure of the degree of concern with or assurance in EAI evoked by the considerations stated in each of the questionnaire situations.

Thus refined responses, which take regard of respondents' MLC and so provide responses to each situation on a uniform but personalised basis, were judged for significant inter-group differences.

Significant inter-group t-test differences

The results of the parametric t-test used to detect such differences are given in Table 11.1. Nine situations revealed consistently significant differences between the EA and each one of the three User groups. These nine were Situations 1, 2, 4, 6, 10, 11, 12, 13 and 19.

A four further situations revealed significant differences when judged against two of the user groups - CMs and IAs (but not significant differences when judged against the Banker group). These were Situations 3, 7, 9, and 14.

In contrast, two more situations (15 and 17) showed non-significant differences between the EA group and the CM and IA groups individually, but concurrently significant differences between the external auditor and banker group.

Finally, two other situations (5 and 8) revealed consistently not significant differences across all groups. This suggests some closeness of view across all groups in the context of EAI in these two situations. The remaining situations showed no consistent pattern of significant differentiation between the relevant issuer and user groups.

TABLE 11.1

SIGNIFICANT(S) OR NOT(NS) DIFFERENCES (@.05) & t-VALUE

t-TEST: REFINED GROUP RESPONSES AND MLC

SITN.	EXTERNAL AUDITOR GROUP VERSUS							
	USER GROUPS		BANKERS		CR. MGRS.		INT. AUDITORS	
1	S	-4.94	S	-2.12	S	-3.92	S	-4.99
2	S	-6.56	S	-2.61	S	-7.17	S	-6.19
3	S	-7.28	NS	-0.97	S	-4.97	S	-9.10
4	S	-3.35	S	1.00	S	-3.48	S	-3.79
5	NS	0.32	NS	0.90	NS	0.52	NS	-0.23
6	S	-6.05	S	-2.14	S	-7.00	S	-4.98
7	S	-3.05	NS	0.52	S	-3.34	S	-3.15
8	NS	-1.20	NS	0.52	NS	-1.78	NS	-1.02
9	S	-3.28	NS	-0.42	S	-3.49	S	-3.23
10	S	-6.14	S	-3.09	S	-5.40	S	-5.62
11	S	-7.59	S	-4.93	S	-8.21	S	-6.44
12	S	3.97	S	3.40	S	3.47	S	3.41
13	S	-6.83	S	-3.26	S	-6.28	S	-7.30
14	S	-5.65	NS	-1.44	S	-7.00	S	-4.50
15	NS	1.34	S	3.08	NS	1.01	NS	0.77
16	NS	-1.38	NS	-0.50	NS	-0.68	S	-1.98
17	NS	1.97	S	2.14	NS	1.89	NS	1.30
18	S	2.44	S	3.84	S	2.82	NS	0.87
19	S	-4.14	S	-2.29	S	-4.18	S	-3.46
20	S	-2.29	NS	0.20	S	-2.80	NS	-1.96
MLC	S	-4.05	S	-2.21	S	-4.44	S	-3.36

Thus, there is foundation to claim that in terms of the EAI issues in the twenty situations, comparative group perceptions in about half of them are significantly different. In contrast, only one situation (5) revealed responses where differences on group responses were consistently not significantly different. As such, there was good similarity of view between groups in terms of the EAI issue contained in Situation 5.

Table 11.1 also shows that the EAI views of the Banker group tended to accord more with those of EAs, as these two groups registered the least number (12) of significant differences. Equally, Credit Managers and Internal Auditors were less in accord with the views of External Auditors, registering significantly differing responses in 15 and 14 (respectively) of the 20 situations.

Significant inter-group Mann-Whitney test differences

The results of the nonparametric M-W test used to detect significant refined response differences are given in Table 11.2. A comparison of results from the t-test and the M-W test shows them to be virtually identical. In fact, conflicting significance results were observed in only two situations (4 and 6) for the BA group, and one situation each for the CM (Situation 8) and IA (Situation 20) groups.

TABLE 11.2

SIGNIFICANT(S) OR NOT(NS) DIFFERENCES (@.05) & Z-VALUE

MANN-WHITNEY TEST: REFINED GROUP RESPONSES AND MLC

SITN.	EXTERNAL AUDITOR GROUP VERSUS			
	USER GROUPS	BANKERS	CR MGRS	INT AUDITORS
1	S -4.54	S -2.03	S -3.76	S -4.90
2	S -6.32	S -2.20	S -6.86	S -5.48
3	S -6.46	NS -0.99	S -5.06	S -8.05
4	S -2.96	NS -1.07	S -3.20	S -3.45
5	NS -0.59	NS -1.04	NS -0.75	NS -0.05
6	S -5.76	NS -1.87	S -6.65	S -4.67
7	S -3.03	NS -0.59	S -3.39	S -3.22
8	NS -1.95	NS -0.30	S -2.44	NS -1.53
9	S -3.28	NS -0.42	S -3.62	S -3.10
10	S -5.38	S -2.97	S -4.81	S -5.23
11	S -7.64	S -4.76	S -7.48	S -6.57
12	S -4.29	S -3.96	S -3.70	S -3.62
13	S -6.66	S -3.27	S -5.59	S -7.00
14	S -5.99	NS -1.60	S -7.16	S -4.76
15	NS -O.98	S -2.40	NS -0.45	NS -0.58
16	NS -1.27	NS -0.56	NS -0.40	S -2.01
17	NS -1.89	S -2.17	NS -1.84	NS -1.21
18	S -2.54	S -3.57	S -2.84	NS -1.00
19	S -4.36	S -2.62	S -4.35	S -3.70
20	S -2.60	NS -0.09	S -3.15	S -2.26
MLC	S -4.61	S -2.30	S -4.85	S -3.89

Thus, group results obtained from both types of tests gave the same results in, at least, 90% of the situations. In turn, this consistency in results provided ground for equally legitimate application of parametric and nonparametric tests in later chapters.

The M-W test corroborated the existence of more similar views on EAI between BAs and EAs (10 situations showing significant differences), than between CMs and IAs when individually contrasted with EAs (16 and 15 situations respectively, with significant differences).

The ANOVA-derived eta-squared correlation

In addition to identifying situations reflecting significantly differing group views, it was considered desirable to obtain a measure of how big such differences were. To do this the ANOVA derived eta-squared statistic, which produces a measure of how much of the variance underlying group responses is explained by their partition into four groups, was also computed. The relevant results are presented in Table 11.3.

The coefficient of measures of correlation provide a measure of the underlying strength of the relationship between (possibly) associated variables. Various measures have been developed for use in specific situations.

TABLE 11.3

ANOVA-RELATED STATISTICS FOR REFINED RESPONSES TO SITUATION QUESTIONS FROM ALL FOUR RESEARCH GROUPS

SITN.	F-VALUE	SIGNIFICANCE	ETA-SQUARED
1	8.321	.0000	.035
2	18.536	.0000	.075
3	30.956	.0000	.118
4	11.151	.0000	.046
5	.641	.5890	.003
6	17.886	.0000	.072
7	7.605	.0001	.032
8	2.272	.0790	.010
9	6.026	.0005	.026
10	9.846	.0000	.041
11	21.291	.0000	.085
12	5.484	.0010	.023
13	18.248	.0000	.073
14	18.443	.0000	.074
15	3.274	.0207	.014
16	1.674	.1713	.007
17	1.797	.1463	.008
18	6.123	.0004	.026
19	6.115	.0004	.026
20	4.177	.0061	.018
MLC	6.413	.0003	.027

However, as is the case presently, the one appropriate to, and often used in, situations where one variable is measured on a ratio-scale with several possible measurement possibilities, and the other variable is nominal with more than two possibilities, is the eta correlation coefficient [Mayntz R. et al, 1976: 191].

Concurring, Norusis [1988b: B-103] states:

> "The eta coefficient is appropriate for data in which the dependent variable is measured on an interval scale and the independent variable on a nominal or ordinal scale. When squared, eta can be interpreted as the proportion of the total variability in the dependent variable that can be accounted for by knowing the values of the independent variable. The measure is asymmetric and does not assume a linear relationship between the variables."

As is always the case, there will be a level of significance attached to the eta coefficient computed. The significance levels will depend on a number of factors, one of which is the number of groups being considered. This overall dependency is expressed by reference to the "degrees of freedom" appropriate to the particular circumstances.

Thus, the coefficient provides an indication of the strength of the relationship between the two variables being considered, while the significance level provides data about the degree of certainty (or probability) attached to that strength of relationship.

In the present context, the dependent variables are those responding to the twenty situations, while the respondent's group membership is the other variable. On that basis, Table 11.3 states the F-ratio, significance level and eta-squared value for the refined responses to the twenty situation questions, for the four groups.

Table 11.3 shows that some situations had unduly large significance (e.g. Situations 5 and 16 with respective significance of .589 and .171). Thus, the eta-squared values in these situations may not be as inferentially helpful as those with significance less than .05. The largest eta-squared (.118) was noted for Situation 3 (provision of concurrent audit/accounting services by the auditor). The second largest eta-squared (.085) was seen in Situation 11 (time-pressure).

Thus, in overall group terms, it appears the concurrent provision of audit and accounting services by the auditor and the impact of time-pressure on the auditor, occasion the most frequent response differences.

The smallest eta-squared (.014) with significance less than .05 was Situation 15 (auditor director of a trust owning shares in a PLC audited by the auditor). Thus, some overall similarity or closeness of view in terms of group responses to Situation 15 appears likely.

Inter-group differences in terms of situation sets

Recognising that an examination of an individual situation alone produces results specific to that situation only, this chapter also examined the twenty situations in sets of classified situations.

These situation sets were developed to (broadly) correspond with the classification suggested by ICAEW's [1987] ethical guideline on EAI, each of the twenty questionnaire situations being grouped within the set that most appropriately classified its facts.

Thus, as in ICAEW [1987], four classifying sets of situations were developed, so that while each form of potential pressure on EAI as stated in the situations could be seen as a distinct independent variable, it could also be categorised within one of the four sets identified by ICAEW in their [1987] guidance document.

Each of the four sets, grouped as above, was tested on a multivariate basis (MANOVA) for significant differences between the External Auditor group and, in turn, each of the other research groups (the last such group being that made up of all user groups together). Table 11.4 presents the results of the multivariate MANOVA-tests, together with the relevant Hotelling's t-statistic and F-value.

TABLE 11.4

SIGNIFICANT (@.05) DIFFERENCES BASED ON HOTELLING'S t-STATISTIC (H-t) AND F-VALUE (F) USING MANOVA ON SETS OF REFINED GROUP RESPONSES TO SITUATION QUESTIONS

S	EXTERNAL AUDITOR GROUP VERSUS							
E	USER GROUPS		BANKERS		CR MGRS		INT. AUDITORS	
T	H-t	F	H-t	F	H-t	F	H-t	F
1	0.03	7.43	0.10	6.57	0.05	5.88	0.06	7.00
2	0.09	11.98	0.12	4.58	0.15	10.83	0.13	9.32
3	0.16	15.29	0.20	5.44	0.36	18.32	0.18	9.34
4	0.16	21.75	0.18	6.83	0.29	20.84	0.31	22.73

Notes:

SET 1: Refers to the **Reliance Factor** and contains three situations (5, 12 & 18).

SET 2: Refers to the **Relationship Factor** and contains five situations (1, 9, 17, 19 & 20).

SET 3: Refers to the **Involvement Factor** and contains nine situations (2, 3, 4, 6, 7, 8, 13, 14 & 15).

SET 4: Refers to the **Pressure Factor** and contains three situations (10, 11, and 16).

Responses from all audit-user group when compared with the external auditor group responses showed significant (S) differences across all four situation sets.

The MANOVA-tests were conducted to assess significant differences between EAs and each of the audit-User Groups. Without exception, the assessment showed that all sets of responses (from all audit-User Groups) were significantly different from those of the EAs.

The resulting implication is serious in that one may infer significant differences of view are confined not only to any one set (or specific sets) of situations as categorised by ICAEW [1987], but to the generality of situations that may reflect aspects of EAI.

Summary

The inter-group findings on EAI are much in accord with Firth [1980: 451] who detected "significant differences in the perceptions of auditor independence ... between the responses of the preparers of financial statements and the responses of users of financial statements."

Further, the assertion of no significant difference between the views of issuers and users of audited financial statements in terms of EAI implied by AT, is largely not borne out by the results of this research. Indeed, it provides evidence that in a majority of instances, groups of persons concerned with EAI, perceive the same auditor-auditee situations with significantly different views from those of EAs.

As such, there is much merit to be derived in establishing views on EAI, as seen by the users of audit services, before any revisions are made to the relevant professional and/or statutory rulings on it. Criticisms of the UK audit profession have been made on that score. For example, Sikka ["Audit Report users are anxious about auditor independence" - Accountancy Age, June 4, 1987: 22-23] states that "hardly any steps are taken to ascertain the views of the users of audit opinions, and consequently very little is learnt about user anxieties and their perceptions of ... (EAI)".

Such criticisms may have been to some avail, for the recently established (April 1991) Auditing Practices Board (APB) set up by the C.C.A.B. has more than half of its 22 places filled by respected non-auditors. Such non-auditors currently come from industry (Reckitt & Colman), finance (BZW Investment), government (the Audit Commission and the Dept. of Trade and Industry), and academia (Edinburgh University and London Business School) to name some of these non-audit organisations.

Certainly, in the light of the generally significantly differing group perceptions of external auditor independence, as revealed in this chapter, such non-auditor representation on the Auditing Practices Board is to be welcomed.

11.2 Intra-group perceptual differences of EAI

Agency theory and differentiation based on firm-size

A school of auditing theorists has suggested that auditors in larger audit firms are more likely to be independent than those in firms not as large, for example, Loeb [1975] and Shockley [1981].

In part, this is explained by the fact that large firms are usually less dependent than smaller firms on any individual client (mainly because fees from individual clients usually form a smaller proportion of the large firm's total revenue than is the case for firms not as large), and the nature of smaller-sized operations that not as large firms tend to have as clients.

Such theorists also hold that some features of less large firms cause them to be inherently more prejudicial to EAI. Such features include their alleged keenness to offer a more "personal" service and the consequent growth of more "cosy" client relationships.

In like vein, Loeb [1975] contends that firm size is an important variable in the determination of how auditors will react to pressure on their independence within situations. When extrapolating a model developed by Carlin [1966] to analyse deviant behaviour in the legal profession, to the auditing profession, he states:

> "Faced with client pressure to violate professional standards, Carlin's model would indicate that the CPA's reaction would be the result of several variables. The first variable is the place of the firm in the organization of the accounting profession. The accounting profession has economically strong firms (e.g. national firms) that do not depend on any one client for a significant proportion of their gross billings. However, there are also firms that may depend on a few clients for an important proportion of their gross fees. It is very possible that a CPA's reaction to client pressure may be related to the economic stability of his (the CPA's) firm." Loeb [1975: 846]

In empirical terms, Shockley [1981: 785] determined some of the views held on EAI by four groups concerned with it. He concluded that in the view of these groups, firm size was an "important factor" in their assessment of the risk of EAI being jeopardised; firm size and the related degree of risk to possible impaired external auditor independence being negatively correlated.

A further body of auditing literature suggests that large firms of auditors are seen by investors to possess more of a "professional reputation" than audit firms of a smaller size [Simunic, 1980; Francis, 1984 and Simunic and Stein, 1987].

DeAngelo [1981a] argues that while users of audited statements do have methods of differentiating audit quality (one ingredient of which is EAI), such methods are expensive to undertake, and so firm size often serves as an adequate surrogate for them.

One possible manifestation of the above may be seen in the sale of new issues, where it is argued that issuers whose financial documents are reported on by large audit firms, are able to offer their issues at a price higher than those whose financial documents have not been reported on by a large audit firm [Balvers et al, 1988] - the effect of so called "reputational capital".

Neu [1991] suggests that a possible interpretation for the above, is the fact that investors use the perceived reputation of the audit firm in question to infer the presence or absence of common expectations. No doubt, one such expectation is that of very high competence and standards, an important aspect of which is EAI.

Thus, it is reasonable to infer that such investors see auditors from large audit firms as reflecting and exercising significantly different and more stringent standards of EAI than auditors from firms not as large. For such investors, large firms are seen to render higher quality audits than those from smaller firms.

Amernic and Aranya [1981: 28] determined that auditors in large audit firms were seen to be "more independent" than auditors in small firms by qualified auditors in Canada. McKinley, Pany and Reckers [1985] conclude that firm size is important to bankers when assessing EAI.

Lindsay's [1989: 1] study (in Australia, USA and Canada) detecting the ability of auditors to resist client pressure in a conflict situation, indicates that auditors are viewed as being more likely to acquiesce to client pressure when "the audit firm is small".

In much the same context, when clarifying some of the auditing aspects of agency theory, Watts and Zimmerman [1986: 318] state that because of "bonding" and "reputation" effects, large audit firms are "more likely to be independent" than ones not as large.

If the above are universally valid, then auditors from these two sets of audit firms, are likely to have differing approaches and perceptions on EAI. As such, there is basis for an "a priori" expectation that auditors from large firms will have significantly different (and more stringent) views on EAI than those revealed by auditors from firms not as large. Hence, this research also tested the hypothesis that there are significant differences of perception on EAI, as shown by auditors from large firms and firms not as large.

The 123 External Auditors that participated in this research were all employed by audit firms that ranked in the Top Fifteen firms of Chartered Accountants (external auditors) in the UK [Appendix C: 258].

As the six biggest firms of auditors control two-thirds of the UK audit market ["Big Six firms control two thirds of UK audit market" - Accountancy Age, May 30, 1991: 1], the 123 auditors were grouped into two categories; those employed by a Big-Six firm (72 auditors) were categorised as "large firm" auditors, while those employed by a nonBig-Six firm (51 auditors) were categorised as a "not as large" nonBig-Six firm.

On that basis, a generalised alternative hypothesis was developed for each of the questionnaire situations. The generalised alternative hypothesis was:

"Auditors from Big-Six and nonBig-Six audit firms exhibit significant differences as to how they perceive EAI." Individual alternative hypotheses hypothesised significant differences of perception of EAI within specified auditor-auditee situations, when responses of auditors from Big-Six firms are compared with the responses of auditors from nonBig-Six firms.

If significant differences were to arise, it was also hypothesised (directionally) that views of Big-Six auditors would be more conservative than those from nonBig-Six firms. The hypotheses were tested using the refined responses to the research situations and the derived results obtained are presented in Table 11.5.

Agency theory and differentiation based on rank in firm

Instead of focusing on the size of the audit firm, some researchers into EAI [Amernic and Aranya, 1981; Farmer et al, 1987] have sought to establish a linkage between views on EAI and the position held in the audit firm (i.e. rank) by individual research respondents.

Such linkage is theorised on the grounds that the EAI views of audit partners, whose financial fortunes are linked to the economic success of their audit firms, are for that reason, more likely to be accommodating or flexible on EAI issues and interpretation of accounting standards, when compared to other professional staff whose (short term) personal fortunes are fixed by salary only.

On the other hand, audit partners have more at stake in their firms than their professional employees, and may thus exhibit more stringent views on matters such as EAI and other related issues than non-partner auditors.

This is the view adopted by agency theorists, who contend (rightly) that to varying degrees, the actions of each partner in an audit firm are monitored by the other co-partners, and that the latter have incentives to so monitor, because, in a partnership situation, each partner is liable for the other partners' actions.

Consequently, Watts and Zimmerman [1986: 317] declare that "this mutual monitoring increases competence and reduces the probability of a given auditor yielding to a manager's pressure", i.e. acting in a less than independent manner. Non-partners are not subject to such mutual monitoring and (with some exceptions) do not share in the economic success of the firm.

As such, partners may well be more likely to steadfastly safeguard their professional independence, and more likely to exhibit more rigid views on EAI than non-partner members of the audit firm.

Precisely this phenomenon was detected by Farmer et al [1987: 10] who, in a study comparing hypothetical positions taken by clients on actual accounting matters, determined that the stand taken by partners "agreed less often with the client's position" than the stand taken by more junior staff in the firm.

Other research also provides some evidence to link rank and views of EAI. For example, Farmer et al [1987: 1] found responses to EAI issues raised in their research questionnaire were "generally found to be more similar for subject groups at adjacent levels (ranks) in the (audit) firm than for non-adjacent groups". However, the evidence is by no means conclusive nor consistent.

For example, Sorensen and Sorensen [1974] when examining professional conflict concluded that as rank within the firm increased, individuals exhibited an increase in bureaucratic orientation and a decrease in professional orientation. Extrapolated to the independence construct within the auditing profession, this would mean that higher levels in the audit firm would tend to be "less independent".

Thus, in order to establish or confirm any persistent linkage between rank in audit firm and views on EAI, this research hypothesised significant differences between EAI views of partners and non-partners.

Furthermore, following "a priori" expectations, it would be reasonable to expect partners to generally hold more conservative views of EAI within the twenty questionnaire situations, compared to non-partners.

Thus, the refined responses provided by the 123 EAs who participated in this research were judged on a partner (31) and non-partner (91) basis. [One respondent did not provide his/her rank so 122 respondents were judged for these analyses and related testing.] Table 11.5 presents the results of the significance testing for these two auditor groups (partner v. non-partner) using the t-test and M-W test.

TABLE 11.5

SIGNIFICANT(S) OR NOT(NS) DIFFERENCES (@.05) ON MLC AND REFINED RESPONSES WITHIN THE EXTERNAL AUDITOR GROUP

	Big-Six v. nonBig-Six		Partners v. non-Partners	
Sitn.	T-test	Mann-Whitney	T-test	Mann-Whitney
1	NS 1.41	NS -1.04	NS 0.77	NS -0.59
2	NS 0.73	NS -0.59	NS 1.83	NS -1.90
3	NS 0.37	NS -0.19	NS 0.94	NS -0.87
4	NS 0.50	NS -0.42	S 2.98	S -2.86
5	NS -1.34	NS -1.51	NS -0.53	NS -0.99
6	NS 0.61	NS -0.46	NS 1.45	NS -1.33
7	S 2.54	S -2.37	S 2.31	S -2.30
8	NS -1.64	NS -1.65	NS -0.24	NS -0.19
9	NS 0.48	NS -0.56	NS 1.45	NS -1.69
10	NS 1.84	NS -1.45	NS 1.38	NS -1.12
11	S 3.44	S -3.64	S 3.22	S -2.96
12	NS -1.80	NS -1.71	NS 1.10	NS -0.58
13	NS 1.28	NS -1.10	NS 1.70	NS -1.66
14	S 2.24	S -2.25	NS 1.18	NS -1.54
15	S -2.85	S -2.72	NS -0.17	NS -0.14
16	NS 0.75	NS -0.71	NS 1.22	NS -0.86
17	NS -0.59	NS -0.92	S 2.21	S -2.22
18	NS 1.36	NS -1.15	NS 1.66	NS -1.69
19	NS 0.85	NS -0.70	NS 1.63	NS -1.55
20	NS 1.19	NS -1.47	S 2.04	S -2.11
MLC	S 3.42	S -3.41	NS -0.69	NS -1.02

Finally, in recognition of the fact that differences of perception may more readily be detected in groups of situations (that relate to the same classifying feature), responses were again considered in groups of situations. For the above purpose, the questionnaire situations were classified on the same basis as that suggested by ICAEW [1985] and then analysed on a MANOVA basis. These results are presented in Table 11.6.

The MLC Response (Big-Six v. nonBig-Six)

Responses from both the above sets of auditors were assessed in terms of the MLC question. As Table 11.5 shows, when MLC responses were compared across Big-Six and nonBig-Six firms, they showed significantly differing results (for both the t- and M-W tests).

The significant MLC difference noted above warrants attention, given that examination of MLC responses suggests standards of EAI demanded by auditors in Big-Six firms are more stringent than nonBig-Six auditors.

This is indicated by the fact that the mean MLC response for the first group was 4.49, while for the second it was only 4.02. One implication must be that in general, the same set of EAI circumstances is more likely to evoke concern in Big-Six auditors than with nonBig-Six auditors.

A further implication arising from the MLC data stated in Table 11.5 must be that claims of some professional "acculturation" [Kelman, 1972] taking place across auditors in varying firm-sizes are not borne out.

This view is based on the contention that if acculturation were to be at all evident, it would be most evident in responses to the general MLC question (devoid of personal considerations or ramifications). However, an absence of acculturation might be inferred from the fact that significant differences were observed in response to the MLC question when compared between Big-Six and nonBig-Six auditors.

For, as Table 11.5 shows, significant differences in terms of the MLC responses were revealed between these two sets (Big-Six v. nonBig-Six) of auditors for both statistical tests (t- and Mann-Whitney) employed in this instance.

The MLC Response (Partners v. non-Partners)

However, by the same token and in the same context, there did appear to be some acculturation occurring across ranks within the hierarchy of audit firms (irrespective of firm-size); for both sets of significance tests on the relevant MLC responses revealed non-significant differences.

MLC responses of both ranks (partners and non-partners) of external auditors were also assessed (Table 11.5). The table shows that standards of EAI expressed by (and demanded from) non-partners appear to be minimally more stringent than those expressed by partners, their mean MLC response being 4.32, while that for non-partners only slightly (4.9%) lower at 4.20.

Indeed, this minimal difference in mean MLCs for the two ranks of auditors was not significantly different. This fact is evidenced in Table 11.5, which shows that the relevant (auditor) sets of MLC responses were not significantly different when assessed according to either of the two statistical tests used in this instance.

The implication must be that, in general, the same set of EAI circumstances are likely to evoke equal concern from partners as from non-partners. Accordingly, on that basis, there may be some process of professional "acculturation" [Kelman, 1972] taking place across ranks of auditors in audit firms.

Significant intra-auditor t- and M-W test differences

Table 11.5 provides the results of significance tests using the parametric t-test and the nonparametric Mann-Whitney test.

The first feature noted from Table 11.5 is the absolute (100%) consistency between the results revealed by both tests and across both sets of auditor groups. As such, in every situation (none excepted) where a significant difference was revealed by one test, the same result was obtained on the other test and vice-versa.

Thus, in reviewing responses, the results of both sets of tests are considered together. In relatively broad terms, one might conclude that the views of external auditors across firms of varying size and across varying (partner v. non-partner) ranks in audit firms are highly similar.

This is because comparison of Big-Six v. nonBig-Six auditors revealed only four instances of significantly differing views on EAI, while comparison across ranks revealed only one more. Accordingly, only Situations 4, 7, 11, 14, 15 and 17 revealed at least one such instance (across audit sets and type of significance test) of significant differences.

Given that use of the eta-squared statistic requires the independent variable to have more than two possibilities, it was not considered appropriate in this case, as there were only two identifying groups (Big-Six v. nonBig-Six or partners v. non-partners).

Intra-group differences in terms of situation sets

MANOVA-differences Big-Six v. nonBig-Six auditors

Recognising that differences of view may more readily be seen in groups (relating to the same classifying feature) of situations, responses were considered in such groups. To do so, the situations were classified (grouped) on broadly the same basis as that suggested by ICAEW [1987], and then analysed on a MANOVA basis.

These MANOVA results are shown in Table 11.6. The t-tests on situations 5, 12 and 18 (Table 11.5) showed some closeness of view on EAI issues relating to the reliance by auditors on their clients, as between Big-Six and nonBig-Six auditors, for no significant differences were noted within them.

Table 11.6 shows that when the same situations are judged jointly in set (1) and MANOVA terms, significant differences are seen. This was so for all responses and sets, the only exception was Set 2 - Relationships.

Thus, there is basis to argue that, with the exception of Personal Relationships, there are consistently significant differences between Big-Six auditors and those from nonBig-Six firms, with regard to their perceptions of EAI issues, with the former group exhibiting the more relaxed view of EAI.

TABLE 11.6

SIGNIFICANT (S) OR NOT (NS) DIFFERENCES (@.05) BASED ON HOTELLING'S t- (H-t) AND F- (F) USING MANOVA ON SETS OF REFINED EA GROUP RESPONSES TO SITUATION QUESTIONS

S	EXTERNAL AUDITOR GROUP ONLY					
E	BIG-SIX v. nonBIG-SIX			PARTNERS v. non-PARTNERS		
T	Hotelling's-t	F	S/NS	Hotelling's-t	F	S/NS
1	0.11	4.05	S	0.05	1.78	NS
2	0.36	0.81	NS	0.07	1.51	NS
3	0.30	4.74	S	0.11	1.74	NS
4	0.13	3.01	S	0.09	2.02	NS

Note:

SET 1: Refers to the **Reliance Factor** and contains three situations (5, 12 & 18).

SET 2: Refers to the **Relationship Factor** and contains five situations (1, 9, 17, 19 & 20).

SET 3: Refers to the **Involvement Factor** and contains nine situations (2, 3, 4, 6, 7, 8, 13, 14 & 15).

SET 4: Refers to the **Pressure Factor** and contains three situations (10, 11 & 16).

MANOVA differences Partners v. non-Partners

The refined responses to the twenty questionnaire situations were classified on a basis very similar to that in ICAEW [1987] and then analysed between partners and non-partners within a MANOVA context. The results of this analysis are presented in Table 11.6.

The significance tests on the refined responses to five situations (4, 7, 11, 17 and 20) revealed significant differences of perception between partners and non-partners when judged according to one or both (t- and Mann-Whitney) of the statistical tests employed.

However, when each of these situations was grouped appropriately and considered together with the other situations that may be classified in the appropriate ICAEW classifying set, no significant differences were revealed on the basis of partners v. non-partners.

Thus, it may be reasonable to conclude that when EAI perceptions of partners and non-partners are considered within sets of EAI situations, classified on the basis of ICAEW [1987], then no significant differences of perception at all are to be revealed. On that basis, this implies good harmony and homogeneity within the UK audit profession, when assessed in terms of partners' and non-partners' views on EAI.

Implications

If conclusions are based on refined responses only, then no strong basis appears evident upon which one may differentiate between approaches to professional EAI between Big-Six and nonBig-Six auditor sets.

Further, these results do suggest a form of acculturation at work, in that when responses from partners and non-partners are compared, most cases reveal "not significant" differences. Thus, given that refined responses are a more personal view of respondents' thoughts on EAI, and that significant differences were consistently not registered for 15 (75%) situations, one may conclude that views on EAI as held by partners and non-partners are in broad accord.

In that light, might it be that the initial ethical perceptions of EAI as held by non-partners are being eased into (perhaps) the same more generous mould as that held by partners, as non-partners progress on their individual ways to partnership rank?

If so, the profession would be well served to ensure more formal education and examination of ethical matters. The profile given to professional ethics by the profession should be elevated, as has been done by other professions and educational establishments.

For instance, Harvard Business School has appointed a philosopher-theologian to deal with the teaching of ethics. Increased knowledge and awareness of ethical matters is vital to a profession which only finds a role if trust is attributed to it. Heightened ethical consciousness makes such placing of trust justified.

Conclusions: firm-size

Amernic and Aranya [1981] concluded that firm size is of important consequence when views on EAI are contrasted between professional auditors. However, if only refined responses are considered, then this finding is largely not confirmed, with only four of the twenty situations showing significant differences.

Thus, based on the refined responses, the agency theory and the "reputationally" implied assertion of significant differences in approach towards EAI between auditors from large firms and firms not as large, is largely not borne out by the results of this research.

Indeed, the statistical tests employed on the refined responses provide ample evidence to show that, in a majority of instances (80%), these two auditor sets perceive the same auditor-auditee situations (concerned with EAI) with views that are consistently not significantly different.

However, the above contention appears to require some tempering in the light of the fact that when responses were considered in sets of situations, as broadly indicated by ICAEW [1987], then three of the four sets so indicated, did reveal significantly differing views on EAI issues between Big-Six and nonBig-Six auditors.

Conclusions: rank in firm

The analysis of responses from partners and non-partners indicated good harmony of view on EAI issues. Most (80%) situations, when judged in refined terms for the significance tests used, showed not significantly different EAI views between these two auditor groups. This closeness of perception is even more pronounced when the situations are judged in sets as broadly suggested by ICAEW [1987]. On that basis, none of the resultant sets show significant differences.

Amernic and Aranya [1981: 24] provide evidence to suggest that one's level (rank) in the audit firm hierarchy is an important influencing factor in terms of perceptions of EAI. They held that in firms of the same size, auditors "at different levels in the firm perceive the **fact** of independence ... quite differently - the higher one is in the hierarchy, the greater is the degree to which CAs of a given firm size perceive that CAs in practice are in general independent ..."

However, this research suggests that if firm size is disregarded and responses considered in their refined form, significant differences of perception on EAI issues are not manifest between those professionally qualified persons who are partners in an audit firm on the one hand, and qualified non-partners on the other.

In the main, this chapter detected significant differences in EAI perceptions between the EA group and each audit user group. The exercise showed significant differences for most of the twenty EAI-based audit situations. Thus, the closeness of audit-issuer and audit-user views on EAI implied by agency theory, do not appear to be borne out in this present assessment.

The chapter also addressed itself to significant differences within the EA group. This it did by comparing refined (situational) responses on a Big-Six v. nonBig-Six auditor basis and a partner v. non-partner basis. In both sets of comparisons, most of the twenty situations revealed differences that were not significant.

Accordingly, the implied difference in stands towards EAI attributed by agency theory implication to auditors in varying firm-sizes and ranks within the audit firm, was largely not confirmed in this chapter.

CHAPTER XII

THE UNDERLYING DIMENSIONALITY OF EXTERNAL AUDITOR INDEPENDENCE

The previous chapter identified significant differences of perception in terms of EAI, between the External Auditor group on the one hand, and each of the three audit user groups (BAs, CMs and IAs) on the other. In some of the twenty situations, significant perceptual differences between EAs from Big-Six and nonBig-Six firms were also identified. The question that then logically arises is - "What causes such differences?"

This chapter (and the two following) considers possible reasons for these differences. Are they due (mainly) to varying group factor models (i.e. distinctive "factors" underlying EAI), or are they due to differences in the way groups see and/or process facts in specific EAI scenarios?

Or, in Brunswick Lens Model [Libby, 1981: 6] terms, could it be that differences in personal attributes (for example biographical data), are the basic influencing feature, when forming or differentiating views on EAI? Thus, we seek to identify and then interpret, phenomena that may help explain group differing views on EAI.

This chapter contains six distinct sections. The first considers the appropriate methodological approach for determining the conceptual constructs underpinning EAI - Factor Analysis (FA).

The second provides a brief explanation of Factor Analysis and considers a few related statistical issues. It then spells out the precise research objectives and finally assesses the suitability of applying FA to the present data sets.

The third section determines the number of underlying perceptual constructs revealed for each of the four research groups (associated or likely to be concerned with EAI). Drawing on the areas of human information processing (HIP) and social psychology, it then goes on to suggest possible (likely) explanations for these findings. The fourth section summarises the main empirical findings and the fifth attempts to provide meaningful explanations of these results.

The (sixth and) concluding section summarises the earlier sections and goes on to speculate about some of the potential implications for the audit profession. In particular, possible explanations grounded in (audit) practice as to why inter-group differences of factor frameworks were observed are presented.

In particular, the audit implications that may arise from such differences between the internal and external auditing professions are considered, noting the latter's increased use of the services of the former when external auditors fulfil their statutory function.

12.1 The appropriate methodological approach

Auditors derive their capacities from the professional status accorded them by users of audited statements. However, given that an important basis of the audit profession is its declared set of ethical principles, and that ethics are individual and intangible - professionally, auditors are expected to act on a set of ethics, that may or may not be in accord with those of relevant groups of users of audited statements.

Providing an effective endorsement to the above, the ICAEW states that EAI "is essentially an attitude of mind characterised by integrity and an objective approach to professional work" [ICAEW, 1987: 9]. However, given that ethical values do differ, and that EAI has been described as "an attitude of mind", it is of consequence that no attempt appears to have been made to unearth possible sets of constructs underlying EAI. Such factors may help to describe and/or establish the ethical dimensions or constructs along which relevant groups base their assessments of EAI.

For, while relevant groups may share the same set of factors underlying their views of EAI, this may not necessarily be so. Differing groups may have varying conceptual moulds, and if so, will reveal differing (sets of) factors underlying their perceptions of EAI.

Further, while EAI has been addressed empirically by several researchers [e.g. Shockley, 1981; Knapp 1985; Farmer, Rittenberg and Trumpeter, 1987; and Lindsay, 1989], such research has only attempted to determine individual influences on EAI, not the underlying factors or dimensions.

Thus a major objective of this research is to determine if in fact there is a distinct set (or sets) of factors (constructs) underlying the concept of EAI; or if not, to confirm it is unitary (meta-conceptual) in nature.

Professional independence describes a personal and behavioural characteristic of the individual external auditor. However independence "in fact" may not necessarily be perceived as such, and thus any practical assessment of external auditor independence must be one of independence "in appearance" and so must lie in the eye of the beholder [Barrett, 1969]. In such terms, EAI is essentially perceptual in nature and hence recourse to perceptual theories are in order.

There are three main types of theory that seek to explain perception [Rock, 1984: 8-13] viz:

1. Inferential and/or empirically based theories
2. Gestalt based theories
3. Stimulus based theories

Stimulus based theory, which is appropriate here, views a perception as a response to a stimulus (or stimuli), and contends that varying (associated) stimuli sharing the same genesis, are possibly likely to share sets of "higher-order features" [Rock, 1984: 13].

In this case, the appropriate methodology to search for such underlying factors (dimensions) of EAI is Factor Analysis (FA). For example, "psychologists and educators have used the technique to determine how people perceive different "stimuli" and categorize them into different response sets" [Child, 1970: 6].

In the present instance, the stimuli are those within the twenty questionnaire situations and the response sets are those (that may be) indicated by the FA results. Used in this manner, if FA shows there are indeed rationally distinguishable factors underlying (different) group perceptions of EAI, then note needs to be taken of them when developing ethical and/or professional standards by the audit bodies concerned.

12.2 Factor analysis (FA)

In the context of human information processing (HIP), (in particular, the Brunswick Lens Model [Brunswick, 1952] as revised by Dudycha and Naylor [1966: Figure 1]), one may consider the data provided in the research questionnaire situations to be the relevant "cues". On that basis, any decidedly strong association between the cues under consideration should also be manifest by a high degree of inter-correlation between judgements of or about them [Ashton, 1982: 15].

12.2.1 Statistical overview

Factor Analysis is a statistical technique used to examine the internal structure of a numerical data set. The technique sorts (by correlation coefficients) the data into unique subsets (factors), so that each subset contains data that are as highly similar as possible.

The common underlying feature binding subsets together is regarded as a "factor". FA is particularly appropriate when analysing data sets that have a high degree of inter-correlation within the constituent variables. While a correlation may exist between a set of variables, FA merely identifies these variables. It does not offer ready explanations for them. It is left to the user of FA to classify or interpret (reify) the factors revealed on some logical or meaningful basis.

FA is conducted in the belief that members of sets of variables, have some of their structure determined by certain underlying unobservable common constructs (factors) and attempts to explain a set of observed variables by a (linear) combination of unobserved independent variables which constitute the underlying factors of the set of observed variables.

FA presents the possibility of condensing down large quantities of numerical data (variables) into a relatively small number of "key" independent variables (measures), thus making the data more amenable to interpretation and further statistical manipulation. In such usage, FA is mainly a data reduction technique.

FA also offers the possibility to test hypotheses generated outside the analysis. In such usage, the underlying factors (constructs) revealed are judged for correspondence with those previously hypothesised. FA is used, inter alia, in this thesis for such a purpose.

Some users of FA see it only as the first stage in mapping out new domains and not as an end in itself. Thus some analysts (for example, Thurstone, - see Child [1970: 55]) are of the view that FA may legitimately be used as a pointer to, and the starting point for, non-factor based research and/or experimentation.

In other words, while FA may reveal factors that in themselves are not readily interpretable on their own, but may well be consistent with constructs derived from other disciplines or areas of study.

12.2.2 Principal component and Factor analysis

Factor Analysis is a generic term. In fact, there are two basic types of underlying model - the factor analytic and the component analytic model. Child [1970: 36] points out that the main distinction between these two types of analytical models is that in the former,

> "some account is taken of the presence of unique variance whereas in component analysis the intrusion of unique variance is ignored. ... In a component analysis (solution) the unique variance becomes merged with the common variance to give hybrid 'common' factors containing small proportions of unique variance, but not enough in the first few important factors ... to be worried about the overall picture obtained from the analysis."

Thus, the basic feature distinguishing these two approaches rests on assumptions made about the portions of the unit variances (relating to each variable in the analysed data set) present in the common factors.

Principal Component Analysis (PCA) is premised on the belief that all the variances are common, so that all the communalities (the sum of the variances or the square of each factor loading) equal unity. In the factor analytic solution, this assumption is not made.

In theory, the two model approaches do not necessarily produce the same factors, and it is important to apply the method of FA that appears more "friendly" towards the data set under analysis.

Both methodologies were used in this research, however the Principal Components method of extracting factors provided marginally more helpful results and is thus the one whose results are reported here.

12.2.3 Other important considerations in using FA

One important FA issue is the number of "meaning-laden" principal factors (components) to be extracted so as to describe adequately the data set under investigation.

In this instance, Kaiser's criterion (rule) was adopted as being the most reliable for the number of variables (20) employed in this study. [See Child, 1970: 43 referencing Cattell, 1952.] This criterion makes use of the eigenvalues (latent roots) attached to, and the percentage of total variance accounted for by varying numbers of factors.

In Kaiser's rule only those factors with eigenvalues greater than unity are taken for further consideration and interpretation, on the basis that they account for at least the average amount of variance per variable.

Another important issue within FA relates to the rotation of the axis of the factors extracted. The initial examination of variables in the data considered for FA reveals an initial (preliminary) matrix giving the relationship (loading) between each (of the) factor(s) and each of the variables.

While this extraction phase of factor analysis produces the "initial matrix", it (the initial matrix) can often be one in which it is difficult to identify meaningful factors. Thus, one way of addressing this concern is to rotate the initial matrix (on its own axis), so as to produce an adjusted or "rotated factor matrix".

A rotation tends to produce factors different from those in the initial matrix, with them usually being easier to interpret. Summarising the essential nature and main effects of rotation, Norusis states that:

> "Rotation does not affect the goodness of fit of a(n) (initial) factor solution. ... although the factor matrix changes, the communalities and the percentage of total variance explained do not change. The percentage of variance accounted for by each of the factors does, however, change. Rotation redistributes the explained variance for the individual factors. Different rotation methods may ... result in the identification of ... different factors." [Norusis, 1988a: B-54]

A factor analysis solution obtained from the initial matrix is "direct", because it is obtained directly from the relevant correlation matrix generated.

By the same token, solutions made from the rotated factor matrix are "derived", "because they are obtained only as a second stage from the results of direct solutions" [Child, 1970: 52].

The two most commonly used methods of rotation are orthogonal (e.g. Varimax) and oblique (e.g. Oblimin) [Norusis, 1988a; Child, 1970]. Under the orthogonal methods of rotation, the underlying factor axes of the relevant data are kept orthogonal (uncorrelated) to each other.

Under oblique rotation methods, the factor axes are allowed to rotate freely so as to arrive at the "best" clustering of individual variables along the factors extracted. The effect of oblique rotation is to produce linearly independent but not necessarily orthogonal dimensions [Cattell, 1952; Child, 1970; and Rummel, 1970].

Each rotation method has its own advantages and limitations. By inference, Child [1970: 60] appears to endorse the use of the oblique method of rotation for behavioural issues (such as EAI) when he states that:

> "oblique rotation with behavioural variables is an admission that most ... human characteristics are correlated to some extent, and (so) the underlying factors must be similarly correlated. The controversial issue concerns the difficulty in deciding the extent of the correlation."

In similar vein, Norusis [1988a: B-59] states "it is unlikely that influences in nature are uncorrelated. And even if they are uncorrelated in the population, they need not be so in the sample".

Comparing the results of two methods of rotation in a research context, Ezzamel, Brodie and Mar-Molinero [1987: 524] state that in their application, "the results obtained under both methods were very similar, but that oblique rotation provided a relatively better clustering of variables". Thus, in this instance, an oblique rotation was used on the underlying data sets.

12.2.4 Factor analysis and the research objectives

On the basis that the questionnaire situations reflect a representative range of different EAI situations, the (refined) responses of each of the four research groups are separately subjected to a FA. Each situation is a variable, and each respondent an observation. The results of the present application of FA are reported in sections following.

Factor analytic methodology is employed here to:

1. Ascertain how many factors underlie the set of variables contained in the data set analysed (i.e. the number of common factors extracted).

2. Find the extent to which each variable depends on each common factor (i.e. the dependency or loading between each variable and common factor).

3. Find the amount of each common factor possessed by each observation (i.e. the communality between each variable and the common factors or factors).

4. Interpret the nature of the factors revealed (i.e. the reification of the underlying common factors).

5. Test theoretically derived EAI frameworks and associated hypotheses against those results empirically determined in this instance.

12.2.5 Amenability of data set to factor analysis

The suitability of factor analysis to analyse our respondents' (refined) responses was judged primarily by two relevant measures, the Kaiser-Meyer-Olkin (K-M-O) Index of Sampling Adequacy, and Bartlett's Test of Sphericity.

The K-M-O index varies between 0 and 1, with small values of the index suggesting factor analysis may not be appropriate, as in those situations it is likely that correlations between pairs of variables cannot be explained by the other variables.

Kaiser [1974] in Norusis [1988a: B-45]

> "characterizes measures in the 0.90's as marvellous, in the 0.80's as meritorious, in the 0.70's as middling, in the 0.60's as mediocre, in the 0.50's as miserable, and below 0.5 as unacceptable."

For each of the four groups, the K-M-O index was more than 0.90 and so all the underlying data sets were considered "marvellous" for FA applications.

Bartlett's Test considers the hypothesis that the correlation matrix obtained from the initial data is an identity matrix and thus inappropriate for FA. Using this test, the null hypothesis of an identity matrix was rejected (at 0.05) in all cases and so FA was judged appropriate for use with the present data sets.

12.3 The underlying dimensionality of EAI

Table 12.1 summarises the results of an Oblimin rotated Principal Components Analysis on the responses to the twenty situations, for each of the four sets of (group) data, using Kaiser's rule to select the "right" number of components for retention (and consideration).

In this context, Child [1970: Chapter 5] suggests that the first factor often refers to an overall "general" factor, and adds that more discerning "group specific" factors are only likely to emerge from an analysis of second and later factors.

Accordingly, a high consistency in terms of common loadings across the four research groups on the first factor may be anticipated in most FA runs, and thus one need only consider second and later factors to search for underlying group-specific dimensions.

TABLE 12.1

SELECTED GROUP FACTOR ANALYSIS RESULTS

Group	Cases	No. of factors (Eigenvalues >1)	Cumulative % variance explained
EAs	118	4	62.3
BAs	80	3	68.4
IAs	245	2	62.3
CMs	238	1	59.0

Assuming always that the factors revealed are capable of valid reification, based on the different number of factors extracted for each group, an initial conclusion may be that each has its own individual factor mould and brings its own construct-frame to EAI.

One might expect, perhaps, that certain EAI issues seen as provocative by one group may not be seen as such by another, and this may help explain the presence of significant group differences of perception of EAI that were identified previously in Chapter 11.

Thus, if the above holds, it is unlikely that any code of ethics developed only by one group using its own constructional framework will necessarily provide full satisfaction to another, who would naturally bring to bear its own constructional framework.

This is particularly relevant in terms of the ethical guidelines (pronouncements) on EAI for auditors, where users of audited accounts may have different perspectives.

It is precisely for this reason that Firth [1980: 463] expresses the hope that future UK ethical guidelines "will be revised ... to take greater account of the views of the users of financial statements - the people whom, ... auditors are trying to convince that they are independent."

By extension then, one may contend that any code of EAI related ethics must be developed with an understanding of, at least, the factor frameworks of the more important groups concerned or associated with EAI.

The question that flows from the above is why each group reveals a different number of factors and/or why the results reported for each group may indicate different underlying conceptual frameworks (of EAI).

Some explanations as to why each of the four research groups revealed a differing and unique number of factors are provided from the social psychology [Belkaoui, 1985] and behavioral accounting theories relating to or derived from human information processing [Libby, 1981].

Social psychologists have found explanations for a variety of differing (inter-person and inter-group) judgements using the "cognitive style" approach. That is to say, they have rationalised differing decision and/or judgment outcomes on the premise that the persons or groups concerned have differing cognitive styles.

Within a HIP context, Belkaoui [1985: 95-96] describes "cognitive style" as a "hypothetical construct that is used to explain the mediation process between stimuli and responses" and then goes on to identify five distinct approaches to the study of cognitive style in psychology.

Two of these approaches are of strong relevance in the present research context. The first is "cognitive complexity" and the second is that encompassed by the term referred to as "integrative complexity". Both are considered in the paragraphs immediately following.

12.3.1 Cognitive complexity

In describing the nature of cognitive complexity,

Belkaoui [1985: 96] states that it,

> "focuses on the psychological dimensions that individuals (or groups) use to structure their environments and to differentiate the (likely) behaviour of others. More cognitively complex individuals are assumed to have a greater number of available dimensions with which to construe the behaviour of others than less cognitively complex persons."

It is further suggested that one possible reason why more cognitively complex individuals (groups) reveal a greater number of underlying dimensions (factors) than do less cognitively complex individuals, is because the former are likely to be more "analytic" in their approach to decision (judgment) making, whereas the latter are possibly more "heuristic" in their approach.

Analytic individuals (groups) are said to have a more explicit (mathematical) model to which they make reference when making judgments or decisions. On the other hand, heuristic individuals are said not to have such explicit models when decision making, but rely on "common sense, intuition and unquantified feelings about future developments as applied to the totality of the situation as an organic whole, rather than to clearly identifiable parts" [Belkaoui, 1985: 96].

Thus in this instance, there is basis to conclude that:

1. In the order of the number of factors revealed in Table 12.1 (least to most), the four research groups are increasingly more cognitively complex in terms of the perceptual framework they bring to the issue of EAI than the previous group or groups.

2. In the same order, the research groups are more analytic than the previous group or groups.

Table 12.1 indicates monotonically increasing degrees of cognitive complexity from credit managers through internal auditors and bankers to external auditors and similarly along the heuristic-analytic scale.

12.3.2 Integrative complexity

The second relevant cognitive style approach refers to "integrative complexity" which Belkaoui [1985: 96] states,

> "results from the view that people engage in two activities in processing sensory input: differentiation and integration. Differentiation refers to an individual's ability to place stimuli along dimensions. Integration refers to the individual's ability to employ complex rules to combine these dimensions."

A person (or group) performing a great deal of both "differentiation" and "integration" is said to be "abstract", while, on the other hand, persons (or groups) performing rather less of these activities are said to be "concrete".

In this regard, Revsine [1970: 706] distinguishes abstract conceptual structures from concrete ones mainly on the basis that:

> "1. abstract structures can generate a greater number of dimensional units of information from perceived stimuli (differentiation) and,
>
> 2. abstract structures are capable of more intricate combination data bits (integrative complexity)."

Accordingly, groups that perceive an issue in essentially abstract terms, will tend to reveal a greater number of underlying (constructs) factors on the issue, when compared to groups that see the same issue in essentially concrete terms.

As such, a variation in integrative complexity may possibly explain why the same issue(s) is seen by our different groups along varying levels of concreteness.

If we relate the varying number of factors identified for each research group to the above comments, we may hypothesise that each group perceives the issue of EAI in varying terms of concreteness or abstraction.

On the above basis, the external auditor group is the most abstract in its perception of EAI and credit managers the most concrete, with bankers and internal auditors occupying intermediate positions.

The implication for the setters of auditing standards are serious. For, if the purpose of an independent audit is to provide credibility in the eyes of the users of audited statements, then such credibility must rest on the perceived independence of EAs (i.e. EAI). However, if the issue of EAI is seen in varying terms of abstractness or concreteness by such users, then it is unlikely that they will share the same opinions on this most vital of issues within the realm of auditing.

If the preceding obtains, then the auditing profession must make continued efforts to determine what are the main group-common factors underlying EAI and ensure that the main concerns within each factor are more than adequately addressed. However, the first step in such a process must surely be to determine and then properly describe, the nature of each of the sets of (EAI) factors revealed by the main groups of users of audited financial statements.

12.4 Empirical results

The loading between a variable and a factor provides some insight into the former's association (dependence) with the latter. Thus, when a variable is highly loaded on a particular factor, there is good reason to believe that it portrays (or contains) much of the nature of the underlying factor on which it is highly loaded.

Thus, if in a data set, a set of variables are mainly loaded on one (and only one) variable, then it is possible to form opinions on the nature of the underlying factor. This process of forming an opinion in such circumstances is termed "reification".

Tables 12.2 to 12.4 provide the results of the initial unrotated PCA factor matrices for the four groups, with loadings greater than 0.5 emboldened. The related eigenvalues and communalities are also provided.

Communality measures the proportion of total variance on each variable, explained by the common factors extracted. In this context, it is of relevance to note that rotation does not affect underlying communalities and so has no effect on them. Child [1970: 42] casts doubt on FA applications where "communality is too low, say in the region of 0.3 or less, "by stating that in such cases the FA may well be "unreliable".

Tables 12.2 to 12.4 show this was not so in the present instance, as the initial factor solutions captured, for all the four research groups, across all 20 situations (with the limited exceptions of Situation 14 for credit managers (0.48) and Situation 17 for external auditors (0.44)), the greater part (i.e. at least 0.50) of the information conveyed in the respective data sets.

TABLE 12.2

INITIAL FACTOR LOADINGS, COMMUNALITIES & EIGENVALUES

		External Auditors				
Situation:		Factor 1	Factor 2	Factor 3	Factor 4	Commu-
No.	Key Idea:	Loading	Loading	Loading	Loading	nality
1	15 years	.79	-.01	.01	-.21	.67
2	Due to ass.	.71	.22	.03	-.42	.72
3	Accounting	.66	.01	.18	-.29	.55
4	Ptg. & Staty.	.63	.26	-.09	-.27	.54
5	Audit US sub.	.56	-.16	.67	-.04	.79
6	Audit fee due	.67	.23	.08	-.35	.63
7	Rental-client	.68	.12	-.35	-.09	.61
8	Auditor-trustee	.54	.48	-.01	.28	.60
9	MD ex-partner	.74	-.11	.06	.22	.61
10	Budget pressure	.70	-.20	.01	-.12	.55
11	Time pressure	.55	-.16	-.43	-.12	.53
12	10% fee income	.68	-.10	.43	.17	.69
13	MAS-Provision	.79	-.15	-.07	-.13	.68
14	Lowballing	.63	-.29	-.19	.16	.55
15	Inv.-trust dir.	.50	.67	.12	.30	.79
16	Large employer	.75	-.38	.09	.17	.74
17	Partner ex-F.D.	.52	.21	.00	.35	.44
18	20% (1%) fees	.68	-.14	-.26	.25	.62
19	Dynamic chair	.69	-.28	-.04	.21	.59
20	Partner brother	.71	.13	-.16	.15	.56
EIGENVALUES:		**8.81**	**1.37**	**1.16**	**1.11**	

TABLE 12.3

INITIAL FACTOR LOADINGS, COMMUNALITIES & EIGENVALUES

		Bankers			
Situation:		Factor 1	Factor 2	Factor 3	Commu-
Key Idea:		Loading	Loading	Loading	nality
1	15 years	.70	-.39	.14	.66
2	Due to ass.	.73	-.51	.06	.80
3	Accounting	.79	-.24	-.24	.74
4	Ptg. & Staty.	.78	-.31	-.09	.72
5	Audit of US sub.	.75	-.24	-.13	.64
6	Unpaid audit fee	.76	-.34	-.02	.70
7	Rental ex client	.88	-.05	.15	.80
8	Auditor-trustee	.78	.07	.14	.62
9	M.D. ex-partner	.76	.35	-.05	.70
10	Budget pressure	.66	.32	.04	.53
11	Time pressure	.53	.09	.78	.89
12	10% fee income	.79	-.25	.11	.70
13	MAS provision	.78	-.21	.05	.65
14	Lowballing	.70	.41	.13	.68
15	Inv. trust dir.	.72	.16	-.04	.55
16	Largest employer	.65	.35	-.13	.56
17	Partner ex-F.D.	.74	.21	-.30	.68
18	20% (1%) of fees	.71	.16	-.27	.60
19	Dynamic chairman	.69	.53	.12	.77
20	Partner brother	.79	.10	-.22	.68
EIGENVALUES:		**10.88**	**1.76**	**1.04**	

TABLE 12.4

INITIAL FACTOR LOADINGS, COMMUNALITIES & EIGENVALUES

Situation		Credit Managers		Internal Auditors		
No.	Key Idea	Factor 1 Loading	Commu-nality	Factor 1 Loading	Factor 2 Loading	Commu-nality
1	15 years	.76	.56	.74	-.23	.60
2	Due to ass.	.76	.58	.81	-.28	.74
3	Accounting	.80	.63	.75	-.30	.66
4	Ptg. & Stat.	.72	.52	.71	-.36	.64
5	Audit US sub.	.76	.57	.68	.25	.53
6	Audit fee due	.72	.52	.78	-.12	.63
7	Rental-client	.83	.69	.78	-.13	.63
8	Auditor-trustee	.78	.61	.74	-.17	.57
9	M.D. ex-partner	.76	.58	.79	-.10	.64
10	Budget pressure	.75	.56	.76	.26	.64
11	Time pressure	.71	.51	.70	.15	.52
12	10% fee income	.77	.60	.74	.31	.65
13	MAS-Provision	.80	.64	.74	-.02	.55
14	Lowballing	.69	.48	.72	.08	.52
15	Inv.-trust dir.	.79	.62	.74	-.31	.65
16	Large employer	.83	.70	.81	.24	.71
17	Partner exF.D.	.79	.62	.74	.05	.56
18	20% (1%) fees	.77	.59	.79	.28	.70
19	Dynamic chair	.76	.56	.75	.32	.67
20	Partner brother	.78	.61	.82	.11	.68
EIGENVALUES:		**11.79**		**11.43**	**1.02**	

Tables 12.2 to 12.4 also show that in all cases the twenty situational variables are highly loaded on the first construct, providing support in this instance for Child's [1970] contention of an overall underlying common or meta-factor of EAI, and thus adding strength to the argument that it is a unitary concept.

However to explore further and to test for potential group differences in perception of EAI, the initial matrices were rotated to simplify the solution and to assist reification. Tables 12.5 to 12.7 give the factor matrices from the Oblimin rotated PCAs of the four data sets, with only (absolute) loadings more than 0.50 indicated. Note that rotation spreads the loadings (more distinctly) across factors compared with the initial factors obtained from the unrotated solution.

As the Oblimin solution does not, by definition, reveal factors which between themselves are uncorrelated, the factor correlation matrices for each group are provided in Table 12.8, so as to identify the nature and extent of (any) inter-factor correlations. In this case, the lack of clear orthogonality between factors 1 and 4 in the case of external auditors, 1 and 2 for bankers, and both factors extracted for internal auditors clearly suggests some overlap in the nature of the underlying constructs identified by these intra-group factors.

TABLE 12.5

OBLIMIN ROTATED FACTOR LOADINGS >0.5

REFINED RESPONSES: EXTERNAL AUDITOR GROUP

Situation:		Factor 1	Factor 2	Factor 3	Factor 4
No.	Key Idea:	Loading	Loading	Loading	Loading
1	15 years				-.59
2	Due to ass.				-.86
3	Accounting				-.63
4	Ptg. & Staty.				-.67
5	Audit US sub.			.77	
6	Unpaid fee				-.78
7	Rental - client				
8	Auditor-trustee		.72		
9	MD ex-partner	.55			
10	Budget pressure				
11	Time pressure	.55			
12	10% fee income			.57	
13	MAS provision				
14	Lowballing	.74			
15	Inv. trust dir.		.88		
16	Large employer	.74			
17	Partner ex-F.D.			.53	
18	20% (1%) fees	.73			
19	Dynamic chair	.71			
20	Partner brother				

TABLE 12.6

OBLIMIN ROTATED FACTOR LOADINGS >0.5

REFINED RESPONSES: BANKER GROUP

Situation No.	Key Idea	Factor 1 Loading	Factor 2 Loading	Factor 3 Loading
1	15 years		.85	
2	Due to ass.		.99	
3	Accounting		.71	
4	Ptg. & Staty.		.80	
5	Audit US sub.		.69	
6	Unpaid audit fee		.82	
7	Rental ex client		.58	
8	Auditor-trustee			
9	MD ex-partner		.80	
10	Budget pressure		.69	
11	Time pressure			.81
12	10% fee income	.75		
13	MAS provision	.69		
14	Lowballing		.80	
15	Inv. trust dir.		.58	
16	Large employer		.77	
17	Partner ex-F.D.		.70	
18	20% (1%) fees		.61	
19	Dynamic chairman		.93	
20	Partner's brother		.58	

TABLE 12.7

OBLIMIN ROTATED FACTOR LOADINGS >0.5

REFINED RESPONSES: CREDIT MGR. & INT. AUDITOR GROUPS

		Credit Managers	Internal Auditors	
Situation		Factor 1	Factor 1	Factor 2
No.	Key Idea	Loading	Loading	Loading
1	15 years	.76		-.73
2	Due to ass.	.76		-.83
3	Accounting	.80		-.83
4	Ptg. & Staty.	.72		-.90
5	Audit of US sub.	.76	.74	
6	Unpaid audit fee	.72		-.58
7	Rental ex client	.83		-.60
8	Auditor-trustee	.78		-.63
9	MD ex-partner	.76		-.56
10	Budget pressure	.75	.79	
11	Time pressure	.71	.61	
12	10% fee income	.77	.86	
13	MAS provision	.80		
14	Lowballing	.69	.50	
15	Inv. trust dir.	.79		-.84
16	Largest employer	.83	.79	
17	Partner ex-F.D.	.79		
18	20% (1%) of fees	.77	.84	
19	Dynamic chairman	.76	.88	
20	Partner brother	.78	.61	

TABLE 12.8

INTRA-GROUP FACTOR CORRELATIONS

	Factor 1	Factor 2	Factor 3
Ext. Auditor Group			
Factor 2	.35		
Factor 3	.19	.14	
Factor 4	-.55	-.40	-.18
Banker Group			
Factor 2	.61		
Factor 3	.06	.11	
Int. Auditor Group			
Factor 2	-.77		

NOTE: The above excludes intra-group correlations for CMs, as only one factor was revealed for that group.

The pattern matrices in Tables 12.5 to 12.7 reveal a simple structure (no variables with high loadings on two or more factors) [Norusis, 1988a: B-58]. Equally, the tables indicate only a limited degree of common (high) loadings on the same factor across situations and groups. In fact, only Situations 1-4 and 6, and, Situations 14, 16, 18-19 appear to be similarly linked within the same factors across groups. This suggests, in terms of EAI for all groups, the absence of a well defined set of common underlying dimensions.

12.5 Reification and framework mapping

To try and understand the nature of the factors revealed, reification was attempted based on Tables 12.5 to 12.7. However, this did not prove simple nor provide totally conclusive results in the form of identifiably meaningful factors.

Any attempt at reification assumes that there are in fact meaningfully identifiable factors or constructs underlying EAI. Thus, in this case, an inability to provide meaningful reification to the factors derived, may only add support to the argument that external auditor independence is a unitary or an overall "meta-concept".

Thus, as suggested previously, EAI, in reality may be a metaphysical concept, which perhaps speculatively may be considered reflective of a general state of mind (and one that accords with related professional offerings on the subject of EAI). If so, it is likely that EAI has no coherent or readily interpretable underlying factors or constructs.

As the credit manager group revealed only one factor underpinning their views of EAI, there is certainly a basis to conclude that that group, at least, sees the issue in meta-constructional or highly concrete terms.

In an attempt to reify factors revealed for the other three groups, their pattern matrices were compared with the four-construct theoretical paradigm presented in the ICAEW [1987] Ethical Guidelines, as modified in Chapter 6: 181-182. These four constructs are Reliance, Relationship, Pressure, and Involvement (conflict).

However, a comparison of the highly loaded situations in the rotated pattern matrices with the ICAEW-derived framework, showed little commonality. Ignoring Factor 3 for bankers, where only one situation (time pressure) was highly loaded, both the internal auditor and banker groups appeared to merge two ICAEW-derived constructs into one of their two EAI constructs identified. However the pairs so merged differed between these two groups.

An even more confused pattern emerges for the external auditor group, where the involvement construct appears to be spilt across two factors. As such, we are forced to conclude that concordance between the ICAEW Ethical Guidelines and our results cannot be demonstrated.

In an attempt to test whether our empirical results were more supportive of alternative theoretical paradigms (or one closely based on them), the following seven categorisations of EAI were also considered:

1. Adams Committee [CICA, 1978]

2. Cohen Commission [CAR, 1978]

3. ICAO [1981]

4. ICAA [1984]

5. Farmer et al [1987]

6. Lemaignan [1987]

7. Lindsay [1989]

However, in no case was there significant support for our results from any of the above alternative sets of EAI theoretical constructs (or vice-versa).

Wysocki [1972] in Dykxhoorn and Sinning [1981a] argues that independence implies the existence of at least two parties or sources of influence, for one has to be independent of someone or something. Thus, it may be hypothesised that the two main (underlying factors) constructs of EAI are impartiality (on issues) and neutrality (between persons).

On the above basis, EAI can only be present if the auditor is totally impartial and neutral. Accordingly, the auditor must be free from, or be able to withstand, influences that either cause him to identify with the interests of others (clients or third parties), or cause him to place his own personal interests above his professional obligations.

Thus, following Wysocki, we would hypothesise evidence of two main constructs in our results corresponding to factors having their genesis in either "pro-other" or "pro-auditor" threats to impairment of EAI. However, our results are also not demonstrably supportive of this classification of EAI.

12.6 Concluding remarks

Together with a number of other authors (Mautz and Sharaf, 1961; Carmichael and Swieringa, 1968; Barrett, 1969) Dykxhoorn and Sinning [1981a] make an important distinction between EAI "in fact" and EAI "in appearance". Expressing this point, the authors argue that:

> "Since the concept of independence in appearance is concerned with the collective perceptions of the users of financial statements, including auditors, ... any specific rules covering auditors' independence in appearance should be based on such perceptions. Determining what those perceptions are should be the first step towards a solution of the (professional auditor) independence problem ..." [Dykxhoorn and Sinning, 1981a: 181].

Further, it is a virtual truism that any set of (revised) rules for the auditing profession will be of real consequence, only if they are developed in the knowledge of what the factors (if any) underlying auditor independence are, as perceived by interested parties and groups. Using a FA approach, this chapter attempted to obtain such relevant perceptions.

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Our empirical results are consistent with EAI being perceived unidimensionally. While a different number of factors were extracted for each of the research groups, the inability to reify these factors into meaningful constructs and the high correlations between factors in the (Oblimin) rotated solution, only add support to this argument. Additionally, the findings of this chapter showed no evidence of any common (EAI) factor structures being shared by the four research groups.

This chapter also tested extant theoretical paradigms against our empirical results but found none to be in complete accord with them. Again, this is supportive of EAI being perceived as a (unitary) meta-concept.

To date, UK professional audit pronouncements and ethical guidelines have been issued without any overt evidence of consultation with audit user groups. This appears to assume common views between issuers and users of audit reports on EAI and other such issues.

However, this assumption is not confirmed by our FA results, where a different number and underlying structure of EAI factors were revealed across each of the four research groups - with EAs offering evidence of being most cognitively complex on EAI and CMs least so.

The preceding findings give rise to some important implications for the audit profession.

Firstly, given the increased reliance being placed by external auditors on professional work performed on their behalf by internal auditors employed by their audit clients, and the fact that, in EAI terms, these two groups revealed differing cognitive structures and/or factor frameworks, one may question if due caution is being advanced in order to make such increased reliance either proper or desirable.

The ICAEW [1986] auditing guideline entitled "Reliance on Internal Audit" recognises the importance of independence in such situations, when it states that "the degree of independence" of the internal auditor (audit department) should be assessed by the external auditor even before any decision is taken to place reliance on the results of their work.

The guideline recognises that IAs are "employees of the enterprise (for whom they work) and cannot therefore be independent of it". In doing so, it recognises that IAs cannot, under normal circumstances, be independent of the management for whom they work, whereas external auditors are - and thereby unfolds a difference both in audit approach and state of "independent" mind.

Referring to the above feature, Chambers [1981a: 47]

states:

> "... it is recognised that internal audit needs independence from management, but this is currently interpreted as meaning independence from the management of a particular audit area, rather than independence from management (as is the case with external auditors) for whom the service is currently being provided."

However, given the likelihood of differing cognitive structures on EAI between EAs and IAs, as revealed by this research, one may ask if IAs can ever acquire the same unfettered and cognitively complex approach to independence that appears to be the hallmark of EAs, and the real distinguishing feature between these two types of auditors.

Secondly, since it appears that external auditors are cognitively more complex and conceptually more abstract than any of the three audit-user groups, it is of consequence to the audit profession to determine why this is likely to be so.

If the increased conceptual abstraction of EAs is a function of their immediacy and/or closeness to the audit environment (audit-immediacy), in particular EAI issues, then users of audited financial statements should be made aware of this fact. Findings of this research indicate a monotonic relationship between a group's cognitive complexity and its immediacy to EAI.

For example, after external auditors, the group that registered the next most complex cognitive structure was the banker group. Bankers, who because of the loans granted by them (both in value and frequency), place significant reliance on EAI are thus more likely to be concerned with the issue than internal auditors, whose daily professional decision making does not normally impinge on EAI-related matters.

Research from the areas of sociology and marketing offers some reinforcement for a basis to such findings. Durand and Lambert [1979] offer empirical evidence from marketing, suggesting an inverse relationship exists between "alienation" and cognitive complexity.

Alienation is regarded in marketing as the extent of involvement with or closeness to the product or service being marketed. Viewed in this light, the term appears to have shades of the consumer's "immediacy" to the item marketed.

Both marketing and auditing would regard "cognitive complexity" as a structural variable, while "alienation" within marketing and "audit immediacy" within auditing would be regarded as a content variable and hence there are possibly interesting parallels to be drawn.

On the above basis, "immediacy" in an auditing context may be regarded as a substitute (or surrogate) for the marketing concept of "alienation". Furthermore, the present findings can be said to suggest an inverse relationship between a group's immediacy to the external audit domain and its degree of concreteness within the cognitive structure it holds on issues related to the external audit.

Further, it is argued within a marketing context, that there are possibly several dimensions to "alienation" and so "the relationship between cognitive complexity and alienation varies, depending upon the dimension of alienation being examined with cognitive complexity" [Planchon and James, 1991: 189].

Thus, extrapolating from the above to auditing, one might argue that the relationship between cognitive complexity and audit-immediacy will vary according to the particular dimension of the latter being examined.

Thirdly, if FA of comparable EAI data sets reveals differing factor bases between groups, then basic underlying group differences in respective conceptual bases of EAI exist, and there is need for a "construct" understanding of EAI as seen by audit-user groups before any set of revised EAI guidelines may be issued.

The object of the above comments may be viewed as the auditing analog of a "conceptual framework" of accounting within the context of issuing accounting standards. Indeed, this absence of a conceptual framework for auditing may account for some part of the audit "expectations gap" which, when seen in that light, may be considered to be more a "conceptual" rather than an "expectational" gap.

If the above obtains, at least in terms of EAI, then that gap will persist as long as the appropriate underlying factor frameworks of audit-users remain unearthed and/or ignored when developing relevant ethical codes on EAI.

Thus, it is of interest to observe that the most recent revision to the audit profession's ethical guidelines in the U.K. was first disseminated in the form of a "call for comments paper" by the Joint Ethics Committee of the three chartered institutes of accountants in the United Kingdom.

Comments were invited from both auditors and users of their services. The closing date for such comments was in the last week of October 1991, and a revised "guide to professional ethics" was planned for release early in 1992.

The next chapter considers group differences in perception of EAI, not from a factor structure basis, but from a distinguishing (or discriminating) point of view. The chapter is presented in the context of the Brunswick Lens Model [Brunswick, 1952], so that based on the nature and use of individual cues within the data set, it attempts to assess and explain inter-group differences in perceptions of EAI.

CHAPTER XIII

THE MAIN GROUP DISTINGUISHING FEATURES OF EXTERNAL AUDITOR INDEPENDENCE

Chapter 10 identified audit situations in which a number of users of audited statements appeared to be concerned with EAI. Chapter 11 identified significant differences of view in some of these situations, as seen by audit-users on the one hand and external auditors on the other.

Chapter 12 considered these differences from a factor analytic (dimensionality) basis and this chapter, which draws on the Brunswick Lens Model [Brunswick, 1952] to examine why such group differences arise, considers them on a discriminant basis.

This chapter attempts to identify sets of specific EAI cues that best distinguish between our four research groups, and two aspects of the research character of the chapter are worthy of special note.

Firstly, in the sense that the chapter also attempts to capture distinguishing cues, this research can be considered similar to, or as the auditing analog of, the "policy capturing" studies done within accounting research [Libby, 1981; Libby and Lewis, 1982].

Secondly, to the extent that the chapter identifies audit situations that reveal differing levels of concern or assurance (in the independence of the relevant auditor) by the EA group on the one hand, and individual groups of audit users on the other, this chapter also reveals some parts of the overall audit "expectation gap" [Liggio, 1974; CAR, 1978].

As such, one aim of this chapter is to highlight audit situations bearing (potential) relevance to the mounting debate on the audit expectation gap [CAR, 1978; Porter, 1989 and 1991; CICA, 1988; Steen, 1990; Singleton-Green, 1990 and Humphrey et al, 1991].

Thus, the multivariate identification of group differences conducted in this chapter can be regarded as a development of the univariate results of Chapters 10 and 11. The chapter has four major sections. The first considers why differing (group) views of EAI need examination, and how linear discriminant analysis (LDA) may be used for this purpose within the context of the Brunswick Lens paradigm.

The second section assesses some of the more important underlying statistical and analytical considerations governing our present use of LDA and the third presents and interprets the related results.

The last section of this chapter discusses the main conclusions and outlines some of the possible practical implications for the auditing profession.

13.1 Understanding differing group perceptions of EAI

An ICAEW Working Party Report states that continued differing views of EAI between audit opinion issuers on one hand, and audit-users on the other, may lead to a loss of confidence in auditing, if the profession applies [ICAEW, 1986: 70] "standards ... inconsistent with the views of intended audit beneficiaries."

Thus it is important to determine those issues which lead to an inconsistency of group views on EAI (issuers v. users), as revealed in Chapter 11. For, if one notes uniquely different cue usage by these groups, then one may focus not on the overall structure of EAI, but only on those of its aspects to show group-varying views.

There is a convergence between the preceding approach and the Brunswick Lens Model [Brunswick, 1952] of Human Information Processing (HIP) which arises because the model recognises that varying perceptions (of say, EAI) may arise as a result of persons (or groups) selecting and using different "mixes" of sets of cues (in this case, the situations describing aspects of the auditor-client environment) in order to form their perceptions.

Further, the Brunswick model suggests that even where groups use the same sets of cues, they may attach different weights to each of them. In other words, relevant groups may make varying use of, or place varying emphasis on, the specific cues being assessed.

Thus, this chapter is premised on the possibility that significant group differences on views of EAI arise because varying groups use varying sets of cues and/or attach differing weights to them. Its main objective is to assess if, and how, this is so.

Linear discriminant analysis (LDA) is a statistical technique appropriate to identify such group-differentiating cue usage. It is much discussed in the literature [e.g. Altman, 1968; Eisenbeis and Avery, 1972; Bund Jackson, 1983; Taffler, 1983b and Cooper, 1984] and so its principles need not detain us here.

13.2 Important statistical considerations on LDA

13.2.1 The respondent bases

The purpose of applying LDA was to determine what group-distinguishing cues are contained in the EAI data elicited from the questionnaire. Six different models were developed. With one exception, all models were developed on a 2-group basis. The exception was Model 6, a 4-group model and the six models developed were:

Model No.	Differentiating Groups
1	External Auditors (EAs) v. Bankers (BAs)
2	External Auditors v. Credit Managers (CMs)
3	External Auditors v. Internal Auditors (IAs)
4	External Auditors v. (Audit) Users (USs)
5	Big-Six EAs v. nonBig-Six EAs
6	EAs v. BAs v. CMs v. IAs

In the event of unequal dispersion matrices and, in particular, non-multivariate normality, the LDA model may be adversely affected empirically by very different sample sizes. In this case, an alternative to adjusting for prior probabilities proportionate to sample size is to use samples of equal size, provided they are randomly selected from their original data sets.

Thus, Models 1 to 3 were developed using 80 randomly sampled respondent cases from each of the two groups considered. Model 4 was developed from the responses of all 123 EA respondents and 123 sample respondents from the three user groups - 41 randomly sampled from each.

Model 5, however, contrasted all the 72 EAs from Big-Six audit firms with all the 51 EAs from nonBig-Six firms. Finally Model 6, the only 4-group model, was based on 80 randomly sampled respondents from each of the four research groups (320 cases in total).

13.2.2 The responses (judgements) analysed

Certain previous research into EAI [e.g. Lavin, 1974] suffers from examining it only on an independent/not independent basis with no provision made for intermediate positions. Further, such research makes no provision for the intensity of individual concern (or otherwise) about such issues to be taken into account.

The "refined" responses (individual "raw" responses as reduced by the respondent's Minimum Level of Confidence (MLC) demanded) used as variables for the present LDA are designed to capture the individual views of each respondent on each issue, taking into account both their perceptual base and intensity of their concern.

Negative refined responses (or group means) indicate concern with EAI whereas positive refined responses indicate comfort or assurance with EAI. The intensity of the (positive or negative) refined responses provides a measurable assessment of such underlying concern or assurance.

13.2.3 The validity of using LDA

Valid use of LDA techniques assumes:

1. equality of covariance matrices
2. separate multivariate normality of each LDA group
3. distinct groups

Various tests were conducted to examine whether the underlying data sets were appropriate to be subjected to the use of LDA. Individual variables were generally univariate normally distributed. However, while this is a necessary condition for multivariate normality - by itself it is not a sufficient condition.

Nevertheless, Box's M statistic (more sensitive to departures from multivariate normality than LDA to departures from equality of covariance matrices) suggested unequal covariance matrices in most cases.

Further, drawing on other experience (e.g. Sudarsanam and Taffler, 1985) quadratic discriminant analysis was not conducted as it has not been shown to be more efficient on out-of-sample data because, (inter-alia) of the increased number of parameters that need derivation. In addition, LDA is generally very robust to departures from underlying statistical assumptions.

All the models were developed using a stepwise method and the SPSS/PC+ software, with the minimisation of Wilks' lambda as the basic criterion. Wilks' lambda was also used to evaluate the overall significance of the discriminant models. Values set for F-to-remove and F-to-enter (the discriminant function) were 3.92 and 3.93 respectively.

Further, in order to reduce multicollinearity between the discriminant variables, a minimum tolerance level of 0.7 was set. Thus the multiple coefficient of determination from regressing any discriminant variable (within any model) on the other discriminant variables in the (same) model was less than 0.3 in all cases. The classificatory power of the model was judged by the Original Sample (OS) method despite its potential for upward bias when compared with the Lachenbruch Holdout (LH) method.

The OS method of assessing LDA results was used because with a non-overfitted model results from both methods (OS and LH) are generally quite similar. For example, Sudarsanam [1981: 139] states that for his research:

> "the Lachenbruch Holdout method results are nearly identical to those of the Original Sample method. The overall classification rates differ not more than 0.5% between the methods. The classification rates within each group are more or less identical."

In addition, and perhaps more importantly, our main concern is with the nature and relative importance of the differentiating situations within the LDA models. As appropriate, four approaches were used to identify the relative contribution of each function variable to the discriminant power of models. All comparable approaches showed quite similar results, and thus only the first of them (below), was used interpretatively.

The four approaches used were:

1. The Mosteller-Wallace (M-W) percentage contribution
2. The (ranked) magnitude of the F-to-remove value
3. The step when the situation entered the LDA model
4. The (rotated) standardised coefficients of the discriminant functions.

Approaches 1 to 3 are appropriate for and therefore considered for the 2-group models, while approach 4 was appropriate for and so applied to the 4-group model.

13.3 Linear discriminant analysis results

13.3.1 Discriminating external auditors v. bankers

This model (Number 1) was developed with two samples, made up of 80 randomly selected respondents from each of the two relevant groups. Pertinent details of the model are provided in Table 13.1.

The model has significance at better than .0000 per its Wilks' lambda. The same significance being attached to its Box's M statistic, it is possible to reject the (null) hypothesis contending an underlying equality between the relevant covariance matrices.

Overall, the model's correct classification result is 71.7%, with 74.4% of external auditors and 68.9% of bankers being correctly grouped.

Based on this model, the essential aspects of external auditor independence that appear to have distinguishing relevance between the external auditor and banker groups, are seen in the five following situations, each of which revealed significant t-test differences (.05) on a total group basis (Table 11.1), and whose Mosteller-Wallace values are stated alongside in brackets:

Sitn. 18 - 20% local fee dependency: Reliance (35.1%)

Sitn. 11 - Time pressure: Pressure (23.9%)

Sitn. 19 - Dynamic chairman: Relationship (18.2%)

Sitn. 2 - Due to audit associate: Involvement (14.5%)

Sitn. 15 - Inv. trust director: Involvement (8.3%)

Situation 18 registered the highest (35.1%) explanatory power within the model. The facts of the situation are one in which the audit firm in question derives 1% of its national fee revenue from the relevant client, though in local terms deriving 20% of its fee income from it. Accordingly, significant (local) fee reliance may be ascribed to the situation.

Interestingly, a study of group means indicates that EAs are significantly differently (t = 3.84) and more than three times concerned with EAI in the situation than BAs - a finding not along expected lines.

TABLE 13.1

DISCRIMINANT MODEL 1: EXT. AUDITOR v. BANKER GROUP

Model

z = -.13 + .54(SITN 2) + .52(SITN 11) - .39(SITN 15)
- 1.06(SITN 18) + .66(SITN 19)

Model-related statistics

Sitn.	Group Means		M-W	F to	Entry in
	EAs	BAs	%	remove	Step
2	.091	-.370	14.5	7.2	4
11	-.221	-1.014	23.9	8.9	1
15	-.740	-.370	8.3	5.9	5
18	-.792	-.219	35.1	27.7	2
19	-.013	-.493	18.2	9.4	3

Classification matrix

Actual Group	Predicted Group Membership	
	External Auditor	Banker
External Auditor	74.4%	25.6%
Banker	31.1%	68.9%

71.7% of "grouped" cases correctly classified

Pooled within-groups correlation (LDA variables)

Sitn.	2	11	15	18	19
2	1.00				
11	.35	1.00			
15	.40	.21	1.00		
18	.38	.32	.29	1.00	
19	.30	.36	.29	.44	1.00

1. Wilks' lambda = 0.696 with chi-square = 52.69, significant at .0000 with 5 degrees of freedom.
2. Box's M statistic = 52.4 with app. F-statistic of 3.36, significant at .0000 with 15 and 87,644 degrees of freedom.

However, such increased concern by EAs may only be an expression of their discontent with the fact that the details provided for Situation 18 did not specifically state that a partner from another office of the auditing firm took final responsibility for the PLC's annual audit, as specified (and so ethically required) by the ICAEW's guidance document [ICAEW, 1987: 20].

In contrast, BAs would not usually have had such an expectation and so their views would not have been prejudiced by lack of a reference to final audit responsibility being taken by a partner from another office of the firm.

Situation 11, which related to the auditor being subjected to significant time pressure, registered the next highest M-W contribution (23.9%) in the model. As such, it appears that one more issue distinguishing between EAI views of EAs and BAs is that of audit completion time pressure.

The CAR [1978: xxx] considered EAI in such situations and took the view that when the auditor is forced to pay inordinate regard to completion deadlines, then regard to professional considerations tends to suffer. For in such situations EAs are under strong pressure to ignore due professional practices and considerations.

Indeed, while on one hand the auditor is required to complete all due audit steps thoroughly (a task that must take some minimum amount of time), on the other, he is obliged to honour the stringent and tight audit deadline agreed to by him. It is in this conflict of priorities that the auditor's conflict with EAI lies.

Not surprisingly, both EA and BA groups showed negative means in the "time pressure" detailed in Situation 11. Closer analysis of group means reveals significant differences ($t = -4.93$) along expected lines, with BAs showing much more (5 times) concern with EAI than EAs, who appeared less troubled with their own independence.

We may note that EAs probably encounter such audit completion time pressure on a somewhat regular basis, and may thus feel able to deal with it (either in reality or in belief), without too great an adverse impact on the independence. Accordingly, it may be reasonable for BAs to appear more markedly concerned with external auditor independence than EAs in such time pressure situations.

Situation 19 (18.2%) is interesting as it is the only one relating to the possible impact of personal relationships and/or human dynamics to be reflected within any one of the six LDA models developed.

Thus, save in this case, views on such personal relationships may not be so different as to be part of a distinguishing pattern between the assessed groups.

The situation referred to the perceived impact of a company chairman with a (Robert) "Maxwellesque" type personality and stature contrasted with the auditor's ability to retain professional independence given the dynamic nature of the chairman.

An analysis of group means reveals that EAs were generally confident of the auditor's ability to remain independent (positive mean), while with a negative mean, BAs did not seem to share that same conviction. This would appear to be in line with a priori belief.

Compared with CMs and IAs, BAs may well be personally confronted with such "threats" to their business judgements (decisions) so that their reactions to the situation reflects its underlying closeness (relevance) to them, compared with the other audit user groups.

Situation 2 (14.5%) was also helpful in determining discriminatory EAI views between EAs and BAs. Its facts state that the management consulting arm of an audit firm has a material invoice unpaid to it by an audit client.

With a positive group mean, external auditors themselves showed no concern with the relevant auditor's independence. In contrast, with a negative group mean, bankers appeared much more concerned with external auditor independence in the situation, in line with prior expectations.

Such concern may stem from the fact that as the auditing firm has a direct financial interest in its management consulting arm, so it may also be deemed to have an (indirect) interest in the affairs (and hopeful success) of its audit client. On those grounds and to that extent, one may argue that the auditing firm in question itself has an interest in its audit client and/or in its affairs.

In general, banker responses were consistent with them being unconvinced of the effectiveness of the "Chinese Walls" often erected between the audit and consulting arms of such audit firms. On the same basis, and perhaps as would be expected, EAs were more willing to concede their effectiveness.

Situation 15 (8.3%) was similar in that it was also one in which it was possible to impute a financial involvement with the audit client by the auditor concerned.

The facts of Situation 15 state that the partner responsible for the audit of a PLC was concurrently a director in an investment trust which held a "not material" holding in the same PLC.

While one would have expected such an (indirect financial) audit-client involvement by the external auditor to have evoked more concern with bankers than with the external auditors themselves, an analysis of relevant group means pointed to the opposite being true.

One explanation of this apparently increased concern by external auditors is that it may well be a reflection of their professional concern that prescribed auditing and/or ethical guidelines are possibly being violated. This would, however, not impact on the banker respondents.

Another alternative possibility is that such ethical guidance may indeed have been "internalised" by the auditing profession - in which case the group means of external auditors may really only have been an expression of the considered and practical assessment of external auditor independence in Situation 15 as seen by the auditing practitioners group (i.e. auditors themselves).

13.3.2 Discriminating ext. auditors v. credit managers

This discriminant model (Number 2) was also developed with two samples made up of 80 randomly sampled selected respondents from each relevant group. Main details of the model are stated in Table 13.2. Only two situations, both with significant t-test (total group) differences at .05 (Table 11.1), showed multivariate discriminant power. With their percentage M-W contributions in brackets, these two were:

Sitn. 14 - Auditor lowballing: Involvement (88.5%)

Sitn. 18 - 20% local (1% UK) fees: Reliance (11.5%)

The model has significance at better than .0000 per its Wilks' lambda. The significance (.02) of its Box's M statistic is small enough to reject the (null) hypothesis contending no significant difference between (or an equality of) covariance matrices. Overall, correct classification of the model is 75.8%, with 80.8% of EAs and 70.9% of CMs correctly classified.

Lowballing, the essential ingredient of Situation 14 (88.5%), may be seen to create an involvement by the EA in the client. Here, if the EA has not fully recovered costs in Year 1, he attempts to recover them in Year 2 and/or subsequent years. In so doing, it is argued, he acquires an interest in the client's survival into the future so as to recover Year 1 unrecovered costs.

TABLE 13.2

DISCRIMINANT MODEL 2: EXT. AUDITOR v. CREDIT MGR. GROUP

Model

z = - .79 + 1.08(SITN 14) - .72(SITN 18)

Model-related statistics

Sitn.	Group Means		M-W	F to	Entry in
	EAs	CMs	%	remove	Step
14	-.584	-1.779	88.5	54.2	1
18	-.792	-.558	11.5	18.9	2

Classification matrix

Actual Group	Predicted Group Membership	
	External Auditor	Credit Mgr.
External Auditor	80.8%	19.2%
Credit Manager	29.1%	70.9%

75.8% of "grouped" cases correctly classified

Pooled within groups correlation (LDA variables)

Sitn.	14	18
14	1.00	
18	.52	1.00

1. Wilks' lambda = 0.729 with chi-square = 47.64, significant at .0000 with 2 degrees of freedom.
2. Box's M statistic = 10.0 with app. F-statistics of 3.29, significant at .0200 with 3 and 4,158,720 degrees of freedom.

Both groups recorded negative mean responses signalling their concern with lowballing, though CMs appeared three times more concerned with it than EAs. In showing concern with EAI in with lowballing, both groups echo the considered opinion of the Cohen Commission [CAR, 1978: xxx] when it states that:

> "the practice of accepting an audit engagement with the expectation of offsetting early losses or lower revenue with fees to be charged in future audits is a threat to the independence of the auditor."

The other situation significant in a multivariate context was Situation 18 (fee reliance at 20% on a local but at 1% on a UK level) which had the highest (35%) discriminant power in the EA v. BA model, also had modest (ca. 12%) discriminant power in this model.

Interestingly, while CMs did not appear to register concern with EAI in the situation (positive group means), EAs were so concerned (negative group means). As to precisely why this was so will remain uncertain, though considerations similar to those offered for this situation in the EA v. BA model may also be valid here.

Generalising from this LDA model, it appears that only situations reflective of an auditor having forms of financial involvement with, or significant local dependency on audit clients register significant group-distinguishing views on EAI between EA and CM groups.

13.3.3 Discriminating ext. auditors v. int. auditors

This LDA model (Number 3) was developed with two samples of 80 randomly selected respondents from each of the relevant two groups. The main details of the 3-variable model developed are presented in Table 13.3. The model has statistical significance at .0000 per its Wilks' lambda. Additionally, the (.5259) significance of its Box's M statistic provides no basis to confirm an inequality of the underlying covariance matrices.

Overall, the correct classification rate of the model is 80.5%, with 83.5% of External Auditors (Group 1) and 77.5% of Internal Auditors (Group 2) correctly grouped.

The model was quite dissimilar to the two previous (comparing EAs v. BAs and EAs v. CMs) in terms of its constituent variables, revealing three situations (3, 10 and 12) to have multivariate discriminant power. All these three situations showed (total group) significant t-test differences at .05 (Table 11.1).

Thus, the main EAI aspects distinguishing between EA and IA groups, with their M-W percentage contributions in brackets are:

Sitn. 3 - Accounting services: Involvement (53.6%)

Sitn. 10 - Budget pressure: Pressure (28.4%)

Sitn. 12 - 10% fee dependency: Reliance (18.0%)

TABLE 13.3

DISCRIMINANT MODEL 3: EXT. v. INT. AUDITOR GROUP

Model

z = -.80 + 1.06(SITN 3) + 1.03(SITN 10) - 1.13(SITN 12)

Model-related statistics

Sitn.	Group Means EAs	Group Means IAs	M-W %	F to remove	Entry in Step
3	.143	-1.372	53.6	34.9	1
10	.442	-.385	28.4	15.4	3
12	-1.494	-1.013	18.0	31.7	2

Classification matrix

Actual Group	Predicted Group Membership: External Auditor	Predicted Group Membership: Internal Auditor
External Auditor	83.5%	16.5%
Internal Auditor	22.5%	77.5%

80.5% of "grouped" cases correctly classified

Pooled within groups correlation (LDA variables)

Sitn	3	10	12
3	1.00		
10	.41	1.00	
12	.30	.45	1.00

1. Wilks' lambda = 0.568 with chi-square = 85.73, significant at .0000 with 3 degrees of freedom.
2. Box's M statistic = 5.25 with app. F-statistic of 0.86, significant at .5259 with 6 and 169,527 degrees of freedom.

Situation 3 refers to an auditor providing limited accounting services to a private company (a situation acceptable within UK auditing ethics) and accounted for more than half the model's explanatory power.

A review of means for Situation 3 (positive for EAs and negative for IAs) reveals that EAs were not perturbed by the concurrent provision by the auditor of audit and accounting services to a private company audit client.

Given that there is nothing ethically repugnant in the facts of Situation 3, and the reality is that many auditors do provide such accounting services to their private company audit clients, it may be expected that EAs would not display about EAI in this situation.

In the case of IAs, who often have a detailed and comprehensive insight into internal corporate financial systems and operations, potential disquiet with EAI issues when the auditor provides concurrent accounting and audit services is registered.

We may speculate in passing that, the lack of significance of this situation in the comparable banker and credit manager models, may reflect their lack of direct involvement with such activities, and thus knowledge of the potential importance of such issues.

Situation 10 (28.4%) is one where the auditor is placed under intense budget fee pressure when performing the client's audit. To the extent that such fee pressures compete against the cost demands made to complete a thorough professional audit - such fee pressure may be perceived to be inimical to the exercise of total EAI.

The EA group registered a positive mean refined score, suggesting their positive assurance that EAI is not adversely affected in Situation 10, whereas IAs had a negative mean refined score, indicating a material degree of concern. We may speculate, as with the time pressure of Situation 12, it is not unusual for EAs to encounter fee pressure in their professional activity.

As such, one interpretation for the positive EA group response might be either that EAs are able through experience to take such pressure in their stride, not allowing it to affect EAI, or they believe that this is so. On the other hand, IAs being more removed from such situations appear to have quite different perceptions.

Situation 12 (18.0%), the final discriminant variable in the model, describes circumstances where an auditor is reliant for 10% (below the 15% maximum suggested by ICAEW [1987: 20]) of his total fees on one client, which is also the firm's only listed audit client.

Analysis of group means shows both EAs and IAs to be concerned with EAI in Situation 12. EAs with a negative mean roughly 1.5 times that of IAs, are more concerned. One interpretation may be that even at a 10% reliance, the auditor is seen as too client dependent. Another interpretation, particularly in the case of the EA group, may be that the real cause for concern is the fact that the relevant client was the only listed one of the auditor and so bore a disproportionate impact in prestige and effect terms on the auditor's portfolio.

The essence of the differing situations to reveal concern (EAs v. BAs and CMs compared with EAs v. IAs) with EAI should be studied by the profession in the UK. For, given the pressure now being put by audit clients on the level of their audit fees ["Clients rebel over audit fees" - Accountancy Age, November 7, 1991: 1], it is likely that in the future, EAs will place even greater reliance on audit work done for them by IAs.

Further, given the increased concern manifest by EAs when the client is the only one listed (despite the fact that it accounts for only 10% of total fees), consideration may be given to reserving audits of listed companies only to firms with fulfilling specified features, as with SEC-regulated corporations in the US [Olson, 1980 and Lee et al, 1983].

13.3.4 Discriminating issuers v. users of audit reports

This LDA model (Number 4) was also run with two groups. The first group consisted of the group responses from **all** 123 external auditor respondents (Issuer group), and the second was made up of responses from 123 respondents (41 randomly sampled from each of the banker, credit manager and internal auditor groups) who use audited financial statements (User group).

Pertinent details of this 3-variable model are given in Table 13.4. The model's significance is .0000 per its Wilks' lambda. With null hypothesis significance less than .003, Box's M suggests inequality of covariance matrices (almost invariable in such applications). The model's overall correct classifying rate was 77.7% with 81.7% of Issuers and 73.7% of Users correctly grouped.

This model was broadly similar to that contrasting views between EAs and IAs, with two of their three discriminant situations (10 and 12) being common. Per this model, the main EAI aspects of distinguishing importance between Issuer and User groups, are seen in the following situations, all differences significant (t-test) at .05 on a total group basis (Table 11.1):

Sitn. 11 - Time Pressure: Pressure (47.0%)

Sitn. 12 - 10% fee dependency: Reliance (27.7%)

Sitn. 10 - Budget fee pressure: Pressure (25.3%)

TABLE 13.4

DISCRIMINANT MODEL 4: ISSUER v. USER GROUP

Model

z = -.86 + .76(SITN 10) + .87(SITN 11) - 1.01(SITN 12)

Model-related statistics

Sitn.	Group Means		M-W	F to	Entry in
	Issuers	Users	%	remove	Step
10	.441	-.216	25.3	20.9	3
11	-.102	-1.181	47.0	43.6	1
12	-1.593	-1.052	27.7	54.3	2

Classification matrix

Actual Group	Predicted Group Membership	
	Issuers Group	Users Group
Issuers Group	81.7%	18.3%
Users Group	26.3%	73.7%

77.7% of "grouped" cases correctly classified

Pooled within groups correlation (LDA variables)

Sitn.	10	11	12
11	1.00		
12	.35	1.00	
13	.45	.42	1.00

1. Wilks' lambda = 0.666 with chi-square = 93.53, significant at .0000 with 3 degrees of freedom.
2. Box's M statistic = 20.36 with app. F-statistic of 3.34, significant at .0027 with 6 and 389,659 degrees of freedom.

Just under 50% of the model's power was contained in Situation 11, which described the classic auditor under time pressure phenomenon. While both groups registered concern with EAI in the situation (negative group means), the concern manifest by Users was more than 10 times that registered by Issuers. Thus explanations similar to those previously provided for the EA v. BA model are likely to be equally valid here.

Situation 12, which describes an auditor's 10% fee reliance on an audit client which, is also his only listed client, provided the next highest (27.6%) level of discriminant power. However, contrary to expectations, Issuers of audited statements appear (significantly) more concerned with EAI in the situation than do Users. As such, comments similar to those made regarding this situation in the context of Model 3 would apply here.

Analysis of group means in the case of Situation 10 (audit fee pressure) which accounted for the last 20.9% of the M-W contributive power of the discriminant model, shows that Issuers do not appear to be troubled with EAI in this situation whereas Users were. Thus the same considerations as those offered for this situation in the context of the EAs v. IAs model are equally appropriate here.

In summary then, our overall model of Issuers v. Users suggests that Issuers of audit reports appear to have different views on EAI, in situations where the external auditor:

1. faces intense audit completion (time) pressure
2. is reliant for about 10% of his total fees on an audit client which is the auditor's only listed one
3. faces intense fee (budget) pressure

13.3.5 Discriminating Big-Six v. nonBig-Six auditors

This linear discriminant analysis model was developed with those 69 of the 72 EA respondents providing all relevant data and coming from Big-Six audit firms as the first group, and all 51 EA respondents from nonBig-Six firms as the second group. The model was adjusted to recognise prior probabilities proportionate to sample size.

Pertinent details of the LDA model suggested are given in Table 13.5. The model has significance at .0000 per its Wilks' lambda. However with significance at .0802, Box's M suggests an inequality of covariance matrices - not uncommon in such applications. Overall, the model's correct grouping rate was 77.0%, with 74.5% of nonBig-Six auditors and 75.4% of Big-Six auditors being correctly grouped.

Four of the twenty audit situations, when assessed conjointly with each other, were significant in a discriminant sense. With one exception (Situation 12), all four situations had significant total group t-test differences (@ .05). These four situations (with their respective percentage M-W contributions in brackets) are:

Sitn. 11 - Time pressure: Pressure (39.3%)

Sitn. 15 - Inv. trust director: Involvement (26.7%)

Sitn. 12 - 10% fee income: Reliance (20.5%)

Sitn. 14 - Lowballing: Involvement (13.4%)

Situation 11 (significant time pressure) registered the highest quantum of discriminatory power in the model (39.3%). Analysis of group means shows that Big-Six EAs were not concerned (positive mean) with EAI in the situation, whereas nonBig-Six external auditors (negative mean) were.

Big-Six EAs may be more likely to work under frequent and intense time pressure in order to adhere to the somewhat more stringent and timely reporting required for large quoted companies who figure more strongly within their client portfolio than their nonBig-Six colleagues. Thus, it may be reasonable to expect that Big-Six EAs will see less threat to EAI in the confines of a stringent time schedule, such as in Situation 11.

TABLE 13.5

DISCRIMINANT MODEL 5: nonBIG-SIX v. BIG-SIX EXTERNAL AUDITOR GROUP

Model

z = .96 - .83(SITN 11) + .63(SITN 12) - .45(SITN 14)
+ .44(SITN 15)

Model-related statistics

Sitn.	Group Means		M-W %	F to remove	Entry in Step
	nonBig-Six	Big-Six			
11	-.500	.191	39.3	15.6	1
12	-1.320	-1.794	20.6	8.7	3
14	-.860	-.426	13.4	5.1	4
15	-.460	-1.353	26.7	8.6	2

Classification matrix

Actual Group	Predicted Group Membership	
	nonBig-Six Auditor	Big-Six Auditor
nonBig-Six Auditor	74.5%	25.5%
Big-Six Auditor	24.6%	75.4%

77.0% of "grouped" cases correctly classified

Pooled within groups correlation (LDA variables)

Sitn.	11	12	14	15
11	1.00			
12	.40	1.00		
14	.33	.42	1.00	
15	.24	.36	.27	1.00

1. Wilks' lambda = 0.734 with chi-square = 35.24, significant at .0000 with 4 degrees of freedom.
2. Box's M statistic = 17.41, with app. F-statistic of 1.67, significant at .0802 with 10 and 52,441 degrees of freedom.

On the other hand, as it is less likely that nonBig-Six auditors consistently report under such tight time pressures, they may sense some jeopardy to EAI if this were to be the case and accordingly their concern with EAI in Situation 11 may be rationalised.

[For an analysis of clients of the then Big-Eight set of CPA firms in the US, see Schiff and Dov Fried, 1976. For a similar and more recent analysis in the UK, see articles by Lea in Accountancy Age: "Analysing the UK's top 100 auditors" - May 30, 1991: 5, and "The singular recipe for achievement" - June 13, 1991: 4.]

Situation 15 describes circumstances where the audit partner responsible for the audit of a PLC is concurrently a director in an investment trust which holds a "not material" level of shares in the PLC. Thus, its main aspect relates to the indirect involvement of an auditor with his/her audit client.

In addition to ethical and professional audit rules, Big-Six firms enforce additional internal regulations which detail prohibitions of involvements between their audit (and other) staff and clients. On the other hand, while some nonBig-Six firms have similar regulations, it is possible that related monitoring and enforcement procedures are less severe than those in Big-Six firms.

Against that backdrop, one might expect a greater in-built scepticism towards any involvement with audit clients (no matter how tenuous) by external auditors from Big-Six firms compared with those from nonBig-Six firms.

Such expectations appear to be confirmed by an analysis of group means which indicates that while both Big-Six and nonBig-Six external auditors are concerned with EAI, Big-Six EAs are significantly (t-value = -2.85) much more (about three times) concerned with it than nonBig-Six EAs.

Situation 12, which describes an auditor's reliance for 10% of his fees from his only listed client, accounts for 20.6% of the model's discriminant power. Univariate testing (Table 11.5) shows Big-Six EAs to be not significantly differently more concerned with EAI in the situation compared to their nonBig-Six colleagues at the 5% level (t = 1.8). However, comparison of group means shows Big-Six EAs to be about a third more concerned than nonBig-Six EAs.

We may hypothesise that such increased concern might be due to the fact that the client and fee portfolio in a Big-Six firm is more likely to be spread over a greater number of clients.

In the case of a nonBig-Six firm however, it is possible that one or two large clients may form a disproportionate element of the client and fee base, and so Situation 12 is more likely to be one with which they are generally accustomed. As a consequence, such nonBig-Six auditors may not have as much cause for concern with EAI as EAs from Big-Six firms in the client (fee) dependency relationship of Situation 12.

The last significant variable, Situation 14 (13.4%), describes the classic lowballing situation which creates an (indirect) financial involvement of the EA in the audit client.

With both Big-Six and nonBig-Six EA groups registering negative group means, their discomfort and concern with EAI in lowballing situations is manifest. However nonBig-Six EAs appear to be twice as concerned as their Big-Six colleagues with significantly different (univariate) levels of concern ($t = 2.24$).

In summary, it appears that situations reflective of reliance on, or involvement by, the EA in the financial affairs of his client, together with the exertion of significant time pressure on the auditor, are among the most manifest source of discriminating EAI views - as between EAs from Big-Six and nonBig-Six auditing firms.

The variation in underlying perceptions on EAI between EAs from Big-Six and nonBig-Six firms may suggest that the two categories of auditors possess and operate in differing sub-cultures. In turn, this may imply a less than homogenous UK audit profession, perhaps indicative of audit cultures split on the basis of firm-size. If so, this may be weakly indicative of some form of acculturation [Kelman, 1972] being at work within these two groups of audit firms. More generally, our results, which must be treated as only preliminary, may be consistent with the auditing profession in the UK not being as homogenous as it would like to be seen to be.

Further, in this respect, the above findings parallel those of Pearson [1979: 186] wherein he states:

> "It should be noted that in any future research project that utilizes CPAs as subjects, researchers should be wise to recognize that the CPA population cannot always be viewed as one homogenous group. As demonstrated ... Big Eight CPAs' perceptions (on EAI) are sometimes different from nonBig-Eight CPAs' perceptions."

Thus, while there appears to be a reasonable closeness of view between Big-Six and nonBig-Six EAs for some EAI issues (e.g. some specific personal auditor-auditee relationships), there also appears to be significant differences of views in terms of other aspects of external auditor independence (e.g. time pressure, involvement in/with clients' affairs and fee reliance).

13.3.6 Discriminating EAs v. BAs v. CMs. v. IAs

This linear discriminant analysis application was developed from sampled responses from each of the four research groups, each sample group being made up of 80 randomly selected cases.

Only two of the three possible functions were statistically significant, and have been retained for closer analysis. Table 13.6 provides the main relevant statistical data. In addition to the unstandardised version, the standardised (rotated) version of these two functions are stated in Table 13.6 in order to provide a measure of the contribution made by each discriminant variable to each of the two functions.

Consequent to the selection method, both LDA functions identified were highly significant at better than alpha = .000. However, the null hypothesis of equality of covariance matrices was rejected according to Box's M.

The model correctly classifies just under 50% of cases to their original group. However, this compares with a probability of chance correct classification of 25%. Having regard to the magnitude of standardised coefficients, Table 13.6 shows that Situations 3 and 11 contributed heavily to the first function, while Situation 12 contributes much to the second function.

The model highlights three aspects of EAI to be of distinguishing group importance, when comparing views within the four research groups. These aspects are those embodied in the three situations noted below:

1. Situation 3 - Acctg./audit services (Involvement)
2. Situation 11 - Time pressure (Pressure)
3. Situation 12 - 10% fee reliance (Reliance)

Consideration of the individual group means in Table 13.6 shows two of these situations (3 and 11) with increased external auditor independence concern by all three User groups when compared to the (external auditor) Issuer group. However, Situation 12 showed the opposite (an increased concern with external auditor independence by the Issuer group when compared to all the User groups).

Situation 3 refers to the external auditor's concurrent provision of accounting and audit services. Analysis of group means for the situation shows that not only were EAs more confident about external auditor independence (compared to the three User groups) but they even derived assurance in this situation, being the only group to register a positive group mean. Given the personal economic (financial) implications triggered off for external auditors by the situation, such responses are along expected lines.

TABLE 13.6

DISCRIMINANT MODEL 6: EA v. BA v. CM v. IA GROUP

Discriminant function coefficients

	Unstandardised		Standardised and rotated	
	Function 1	Function 2	Function 1	Function 2
SITN 3	.91	-.18	1.15	-.22
SITN 11	-.10	.86	-.65	-.52
SITN 12	-.55	-.44	-.13	1.12
CONSTANT	-.28	.17		

Function statistics

	Function 1	Function 2
Wilks' lambda	.65	.91
Chi-square	129.42	29.08
Significance	.0000	.0000
Degrees of freedom	9	4

Group Means

	EAs	BAs	CMs	IAs
Sitn. 3 (Accntg. services)	.14	-.12	-.70	-1.37
Sitn. 11 (Time pressure)	-.22	-1.01	-1.43	-1.05
Sitn. 12 (10% fee income)	-1.49	-1.08	-1.25	-1.01

Classification matrix

Actual Group	Predicted Group Membership			
	EAs	BAs	CMs	IAs
EAs	64.6%	17.7%	6.3%	11.4%
BAs	24.3%	29.7%	31.1%	14.9%
CMs	16.7%	19.2%	38.5%	25.6%
IAs	15.0%	6.3%	18.8%	60.0%

48.6% of "grouped" cases correctly classified

Pooled within groups correlation matrix

Sitn.	3	11	12
3	1.00		
11	.42	1.00	
12	.48	.40	1.00

Overall statistics

Box's M statistic: 38.86 (sig. @ .0037)
Rao's F app.: 2.12
Degrees of freedom: 18 and 318466

If it is the former, then we have evidence to suggest that even at a 10% fee dependency (less than the 15% suggested by ICAEW [1987: 20]), both issuers and users of audited financial statements are concerned with EAI (issuers more so). On this basis, UK audit bodies may wish to reconsider the suggested 15% maximum fee dependency.

If however, the concern displayed with EAI in Situation 12 is an expression of discomfort with the fact that the client in question is the only listed one of the auditor, then the UK audit profession may wish to consider some stratification within it, such that firms performing audits of listed companies fulfil more stringent professional and financial criteria.

In summary it appears that situations reflective of a level of reliance on, or involvement by the EA in the client's affairs, and exertion of major time pressure on him are possibly the most manifest source of EAI discriminating views in the four groups, all of whom are associated with (use or issue) audited accounts.

13.4 Summary conclusions and implications

Following on from the Brunswick [1952] Lens model, this chapter hypothesised that the four research groups may be differently affected, each by varying EAI stimuli.

To an extent the preceding may reflect the possibility that individual cognitive processes (inter alia), based on group origin may provoke the same stimuli to be viewed differently.

Thus, in an EAI context (as embodied in the stimuli contained in the questionnaire situations), using LDA modelling techniques, this chapter attempted to:

1. identify the stimuli (situations) that give rise to differing percepts between groups and,
2. assess the different discriminant power of each stimulus (situation).

In all, six LDA models were developed. With the exception of Model 6 (EAs v. BAs v. CMs v. IAs), all were 2-group applications, and contrasted EAI views between or within the research groups.

In general, the models developed showed that situations relating to personal relationships between auditors and their clients (client staff) did not possess strong discriminant power and, as such, may be less helpful in distinguishing EAI views among the four groups.

This suggests that, in general, the four groups see such situations in much the same way, at least not differing enough to warrant presence in a LDA model.

The only exception to the above was in the LDA model distinguishing EAI views between EAs and BAs. This exception may reflect the relatively richer cognitive domain in the case of bankers, when compared with the other User groups, who were probably less likely to have significant experience of interface with the type of dominant, dynamic company chairman as characterised in Situation 19.

However the models did show that (to varying degrees within models), situations reflective of types of pressure on the external auditor (Situations 10 and 11), reliance by him on a level of fee income from one client (Situations 12 and 18) and an involvement (direct or indirect) by the auditor with or in the affairs of the client (Situations 2, 3, 14 and 15) were important in determining group-differentiating views on EAI.

Given recent discontent with EAI as expressed by some users of audit services (see for example, remarks made by Davies, the [then] Audit Commission Controller, "Private sector independence audit call" - Accountancy Age, October 31, 1991: 2), the general expectation in the twenty situations was that where group differences are manifest, then EAs would be more content with or approving of EAI than users of their (audit) services.

With two exceptions (Situations 12 and 15), the results showed Big-Six/nonBig-Six group differences on views of EAI to be along prior expectations. Situation 12 related to the EA's reliance on a 10% level of fees from a client. In these cases, Big-Six EAs were more concerned (higher negative means) than nonBig-Six EAs.

As group differences identified were generally along expected lines, they tend to support Firth's [1980: 451] findings whose results indicated that "users of financial statements were much more sceptical of EAI" than EA themselves.

Thus, disregarding the two preceding situations (12 and 15) and Situation 18 (provincial office of Top Ten firm generating 20% of local but 1% of national billings), each of the LDA situations identified in the six models developed showed (analysing group means) that EAs have a more relaxed view of and approach to EAI in the audit situations than the audit user groups.

Additionally, further noteworthy group differences (especially within the contexts of significant audit completion time pressure - Situation 11, and lowballing - Situation 14) were seen to be manifest between external auditors from Big-Six and those from nonBig-Six auditing firms.

EAs from Big-Six firms appeared less concerned than their nonBig-Six colleagues with EAI in a lowballing situation. As to precisely why this is so is open to more precise enquiry. However Big-Six auditors appear to be in general agreement with the views of DeAngelo [1981a: 95] when she states that:

"low-balling is a response to an underlying parameter which creates economic interest; low-balling is <u>not</u> the cause of impaired auditor independence.

In fact, observation of low-balling would suggest that there is some competition in the market for audit services, since (it) is a competitive response to the existence of future potential profits. Our analysis suggests that regulations (or suggestions by the Cohen Commission) which attempt to deal with the issue of auditor independence by curtailing low-balling treat the symptom not the cause."

DeAngelo's theoretical model of EAI, set in a mainly agency theoretic context, shows that competitive market equilibrium requires initial fees to be less than costs (requires low-balling to occur). As such, she argues lowballing does not in itself pose a threat to EAI.

The rationale behind the above conclusion is based on the fact that initial fee reductions are sunk-costs in future time periods, and accordingly will have no impact on either the magnitude of future quasi-rents or on EAI. It is the existence of these quasi-rents which is detrimental to EAI and so regulations prohibiting lowballing will have little, if any, effect on EAI.

On the other hand, it would appear that nonBig-Six EAs do not share the above views of DeAngelo, and that their views are more in line with the Cohen Commission [CAR, 1978: xxx] when it stated that lowballing " ... is a threat to the independence of the auditor."

Having identified some of the issues on which audit interested groups do not share EAI views with EAs, it behooves the profession to consider more carefully why these differences arise and to then suitably amend, if necessary, their professional code of ethics.

In parallel, this chapter also helped identify cases where the "expectations gap" between Issuers and Users may be most pronounced. In summary, concern by the audit profession should be focused, based on evidence noted in this chapter, on the following main issues:

1. the provision of MAS (given the ensuing financial linkage that then evolves between the auditor and the audit client) when such services are provided by the auditor's consulting associate to the audit client (Situation 2)

2. the provision of concurrent accounting and audit services by auditors to their private company audit clients (Situation 3)

3. the acceptance of audit engagements with excessive time (Situation 11) and/or budget (Situation 10) constraints. Further, consideration might be given to the establishment of some scientific and/or objective basis to determine what is "excessive"

4. the level of acceptable fee dependency on one audit client, individually or as a group (Situations 12 and 18)

5. the practice of lowballing (Situation 14)

6. the precise nature of acceptable (if at all) involvement in the affairs of clients - particularly with reference to the holding of directorships when (indirect) connections with audit clients are a possibility (Situation 15)

A further point raised by the LDA results parallels findings in Chapter 10, relates to differing levels of cognitive complexity underlying each group.

The EA v. BA linear discriminant model contained 5 situations, the EA v. IA one 3 situations and the EA v. CM model only 2 - a feature that appears to parallel our findings relating to the ranking of the number of (dimensional) factors underlying the groups.

Interaction of different group task domains experience in conjunction with the particular aspects of the audit situations specified may also need to be taken into account in future research directions.

This chapter has examined EAI from the perspective of facts contained within the individual scenarios - i.e. (in Brunswick Lens model terms) the underlying cues. Using this perspective the areas that best distinguish group views on EAI were identified and discussed.

The next chapter is also premised on a construction of the Brunswick Lens model, in that it allows for differing group views to evolve not so much as a result of the EAI cues judged being viewed differently, but on the basis that judges doing the assessment bring to bear varying personal experiences, background and biographies - individual influences which may condition or help explain their differing perceptions of EAI.

CHAPTER XIV

PERSONAL CHARACTERISTICS AND GROUP VIEWS ON EXTERNAL AUDITOR INDEPENDENCE

Previous chapters have revealed differing views on EAI, as held by auditors and three different groups of audit users. To what extent then, within groups, do past experiences or personal features fashion views on EAI?

This chapter considers if there is any underlying basis to the claim that a relevant group's views on EAI are strongly influenced (or conditioned) by some of the specific personal characteristics (attributes) of its members. Multiple linear regression (MLR) is employed as the most appropriate methodology in this instance.

The chapter has four distinct sections. The first considers the basis underlying the use of MLR in the present context while the second presents the rationale for considering the variables specifically selected for assessment within the regression analyses.

The third section presents the results of the regressions and an interpretation (discussion) of the same. The fourth (concluding) section summarises the main regression results and assesses likely implications within and for the audit profession.

14.1 The multiple linear regression methodology

Social psychology theory suggests that man's cognitive structure and processes are a composite of his own personal attributes, as influenced by those features or qualities "acquired" (acculturated) through (inter alia) peer contact, education and/or past experiences. If this is so, then within our individually distinct groups, one may justifiably expect a strong and consistent linear relationship to emerge between the judgements of individuals who share many, if not most, of the same personal features and/or biographical data. Further, if the preceding holds, then linear regression equations computed from appropriate data within relevant groups, should confirm such a relationship.

Within a human information processing (HIP) context, researchers recognise that personal characteristics, such as past experience, may have an influential or formative effect on dependent variables of interest.

For example, using ANOVA (analysis of variance) or MDS (multidimensional scaling), Rockness and Nikolai [1977], Libby [1979], Ashton and Kramer [1980] and Brown [1980] specifically examine the effect of the "personal characteristics" of their respondents, on the dependent variables of interest in their studies.

The nature of Multiple Linear Regression (MLR) is well established, but in essence, it is a means of analysing situations where there is reason to believe that one (dependent) variable is simultaneously (linearly) affected by several (independent) variables.

The HIP literature is ripe with the use of MLR in an accounting (or auditing) domain. For example, Libby [1981: 142-150] lists eight research applications where it was used as the primary research tool for Brunswick Lens Model studies within such an accounting (auditing) context, including studies considering personal attributes of the judges as cues [e.g. Wright, 1979].

In the present instance and in the research studies referred to previously, the underlying justifications for searching out a consistent linear relationship between the "personal characteristics" of the relevant respondents and the dependent variable of interest, are the general beliefs that "man is a product of his past" and/or that "man is a product of his environment".

14.2 The variables for the regression equations

This section describes and explains the basis for the regression equations developed and analysed in this chapter, in particular, the variables offered for consideration and inclusion within the equations.

14.2.1 The independent variables

An important objective of our research is to explore whether certain personal characteristics of our respondents help explain their views (in group terms) on EAI. To this end, each questionnaire contained a set of biographical inventory questions reflecting basic bio-data, professional specialism and experience, and degree of familiarity with the external audit environment. Appendix B: 247-257 is an example of the questionnaire used for the internal auditor group.

Our independent variables are derived from responses provided to these questions. Six variables were common to both auditor and audit-user groups, while two further variables pertained to the auditor group only.

The audit-user group independent variables are:

1. Respondent's age in 5-year bands (**AGEYEARS**)
2. Years of professional experience (**EXPERIEN**)
3. Possession of a university degree (**UNDEGREE**)
4. Knowledge about issuing audit opinions (**KNOWLEDG**)
5. Area of principal professional activity (**ACTIVITY**)
6. Frequency audited statements used (**FREQUENT**)

The additional auditor group independent variables are:

1. Rank in audit firm (partner/non-partner) (**RANKFIRM**)
2. Size of audit firm (Big-Six/nonBig-Six) (**FIRMSIZE**)

Respondents' ages

Similar research (e.g. Rockness and Nikolai, 1977) has considered the age of respondents as a potential explanatory variable when assessing group views on relevant issues.

Thus, the variable AGEYEARS (being the age of individual respondents age, expressed in one of two age-bands) was developed as a proxy for experience or maturity of views (perhaps reflecting cognitive complexity - see Chapter 12). The variable AGEYEARS is treated as binary and divides each sample group into two parts of approximately equal size.

However, because of differing age profiles across the four research groups, varying cut-off points were appropriate to the groups. As such, the two age categorisations developed for the AGEYEARS variable in respect of each research group are:

1. External Auditors	<30 years		= 0
	30 or more years		= 1
2. Bankers	<40 years		= 0
	40 or more years		= 1
3. Credit Managers	<50 years		= 0
	50 or more years		= 1
4. Internal Auditors	<40 years		= 0
	40 or more years		= 1

Number of years experience using audited statements

It is often held that experience is the best teacher. Thus, (consistent with the approach of Boatsman and Robertson, 1974 and Hamilton and Wright, 1977), the personal variable EXPERIEN was assessed within the regression equations. This was done to allow for the possibility that views on EAI are coloured by (not only the frequency with which use is made of, or reliance placed on audited accounts but also) the extent of past experience. [To an extent we might expect EXPERIEN to be highly correlated with the variable AGEYEARS.]

The pilot study (Chapter 6) asked respondents for their exact number of years of experience using audited accounts. However analysis of it showed some resentment to providing such exact details. Further, some survey design literature (e.g. Babbie, 1990: 285) suggests better results with "the reduction of data from unmanageable details to (more) manageable summaries."

Thus, in the main investigation, respondents were asked for their number of "years of experience using audited accounts" in bands of five years, and from these responses the binary variable EXPERIEN was constructed on the same basis as that used for AGEYEARS (i.e. so as to form two partitions of approximately equal size within each group).

As a result of the variation in the experience profile of the groups, EXPERIEN was coded as detailed below:

External Auditor Group

Less than 5 years experience = 0

5 or more years of experience = 1

Banker and Internal Auditor Groups

Less than 15 years experience = 0

15 or more years of experience = 1

Credit Manager Group

Less than 25 years experience = 0

25 years or more of experience = 1

Possession (or not) of university degree

Drawing on Berelson and Steiner [1964], we hypothesise that those respondents who possess a university degree, used as a measure of an advanced level of education, are likely to judge the EAI issues assessed in the questionnaire differently from those who do not possess a university degree. Berelson and Steiner [1964: 569-570] maintain that in their view:

> "Opinions, attitudes, and beliefs within a group are particularly subject to influence by the most respected and prestigious member(s) of the group, the opinion leaders. Virtually every group has its own opinion leaders on various topics: they know more about the topic, are the touchstone for the group's position, and are looked to for information and guidance. The opinion leaders within a group tend to be a little better educated than the other members."

Accordingly, the dummy variable UNDEGREE (0 = no degree, 1 = degree) was used to provide for examination of this hypothesis.

Extent of knowledge about issuing audit opinions

The factor analysis results of Chapter 12 indicate that the more complex the cognitive structure of a group, the more dimensions appear to underlie its perceptions of EAI. We hypothesise that the greater knowledge (cognition) a respondent has about the process of issuing audit opinions, the more his/her perceptions of EAI-related issues will be influenced. For this purpose, the variable KNOWLEDG was developed as below.

Respondents were asked to indicate the extent of knowledge they had about "issuing audit opinions". While responses were initially provided within a four-point scale ("minimal" to "total"), they were ultimately subsumed within only two classifications for analysis purposes.

The first classification for this variable contained those respondents indicating a basic ("minimal" through "modest") knowledge about issuing audit opinions (KNOWLEDG = 0), and the second classification contained those respondents indicating any better ("good" through "total") level of knowledge of the same (KNOWLEDG = 1).

Principal professional activity (area of specialism)

The idea that individual groups of persons associated (or concerned) with audited financial statements have equally individual or distinctive views on EAI is appealing because of its underlying "aesthetic" simplicity. However, this may not necessarily be the case.

Nevertheless, if within individual groups, one is able to establish a clear and consistent relationship between the views of members of a group who perform (principally) the work attributed to it, and the same for those group members who (while remaining members) do not mainly perform such attributed work, then within groups, one might argue the existence of a relationship between EAI views and the nature of professional work or activity mainly performed by members of such groups.

To consider the above, the variable termed ACTIVITY was developed from the responses provided to the question about the main work activity (specialism) of respondents. The variable was computed so that where ACTIVITY = 1, respondents worked in mainstream activities related to their professions (e.g. external auditors engaged mainly in audit, or bankers mainly in bank lending). Where ACTIVITY = 0 respondents worked mainly outside their professional specialism.

Frequency with which use made of audited statements

The findings about the dimensionality of EAI of Chapter 11 indicated some direct connection between a group's immediacy to the external audit environment and its underlying cognitive complexity of EAI. On this premise, we postulate that a high or low exposure to the audit environment through high/low frequency of use of audited statements, may also influence views on EAI.

The variable FREQUENT is derived from responses to a question asking for the "frequency with which audited accounts" are used. While responses were given on a five-point scale ("never" to "always"), for purposes of the regressions they were reduced to two categories.

Where FREQUENT = 0 respondents made use of audited accounts on a "less than often" ("never" to "medium") basis. Where FREQUENT = 1, respondents made use of audited accounts on an "often or more than often" ("often" to "always") basis. For obvious reasons, this variable was not relevant to the EA group.

Rank within audit firm

Some (e.g. agency theorists) argue that an audit partner has a greater personal involvement with and concern for, his/her firm's professional independence than the audit professionals merely employed by it.

Agency theorists suggest this greater involvement and concern arises from the unlimited liability feature and "mutual monitoring" incentives present in audit (and other) partnerships [Watts and Zimmerman, 1986: 317].

If this is true, then it is reasonable to expect partners to have EAI views different to other (lower) professional ranks (managers etc.). On this premise, the binary variable RANKFIRM was used so that RANKFIRM = 1 for partners, and 0 for other professional staff.

Size of audit firm

In addition to the partner/non-partner status of an auditor, agency theorists argue an important feature governing exercise of EAI is the size of the audit firm [Watts and Zimmerman, 1986].

They maintain that "brand name" economies foster formation of large audit firms because of their inability visibly to distinguish themselves through audit quality, and so they will distinguish themselves by a surrogate - firm size. Together with DeAngelo [1981a], Watts and Zimmerman [1986: 317-318] take the agency theory view that:

> "a large audit firm provides a much larger bond for its audit services than ... a single auditor (and) the size of the large firm's bond means (it) is more likely to resist a ... manager's pressure not to report breaches (i.e. is likely to be more independent)."

Thus, to test the hypothesis that large firm auditors have differing views on EAI when compared with those from firms not as large, the dummy variable FIRMSIZE was submitted to analysis. Big-Six firm auditors are assigned a value of 1 and nonBig-Six ones a value of 0.

14.2.2 The dependent variables

Two continuous dependent variables were considered:

1. Minimum Level of Confidence (MLC), and
2. Mean Composite Refined Response (MCRR)

Minimum Level of Confidence (MLC)

The MLC variable, as registered by each respondent played a crucial role in developing the data sets analysed in this research. This is because each respondent's MLC acted as a "personal filter" between his/her actual (raw) responses to the situations, and the underlying degree of confidence (in EAI) present.

The MLC variable is obtained as the response to the following question in the questionnaire [App. B: 254]: "What do you consider to be the Minimum Level of Confidence in the independence of external auditors that users of audited statements may justly demand?". Responses to the MLC question were registered on a 7-point scale (0 = NONE through 6 = TOTAL) provided alongside the question.

The MLC question was asked in an attempt to capture each respondent's overall and underlying view of and attitude to EAI. Thus, it is an excellent base against which to judge the possible importance of the personal determinants of each respondents' views on EAI.

Mean Composite Refined Response (MCRR)

If we postulate that individual respondents replied to the questionnaire situations with a good measure of consistency, and that the twenty questionnaire situations constitute a representative range of important EAI issues, we may consider that the mean of all twenty responses - ("AR" or Average Response) "captures" the overall essence of each respondent's views on EAI.

However, the "Mean Composite Refined Response" (MCRR) is computed as the difference between AR and MLC (i.e. MCRR = AR - MLC) and is used in preference to AR alone, as in addition it was judged that the MCRR gave expression to and recognised individual personal norms.

Table 14.1 provides, for each of the four research groups, some basic descriptive statistics (mean and selected standard deviations) for the values attached to their individual sets of dependent and independent variables.

TABLE 14.1

DEPENDENT AND INDEPENDENT VARIABLES SUMMARY STATISTICS

	Groups							
	EAs		BAs		CMs		IAs	
n =	117		76		205		230	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Variables:								
Dependent								
MLC	4.27	.77	4.01	.93	3.88	.90	3.99	.90
MCRR	-.31	.78	-.33	.82	-.71	1.01	-.73	1.05
Independent								
AGEYEARS	.59		.41		.45		.66	
EXPERIEN	.57		.46		.34		.45	
UNDEGREE	.76		.72		.35		.74	
KNOWLEDG	.72		.49		.02		.39	
ACTIVITY	.84		.88		.61		.76	
FREQUENT	NA		.86		.58		.23	

25% of EA respondents were partners in audit firms.

57% of EA respondents were from Big-Six audit firms.

TABLE 14.2

CORRELATIONS: DEPENDENT AND INDEPENDENT VARIABLES

MULTIPLE REGRESSION FOR EXTERNAL AUDITOR GROUP

	AGE	EXP	UND	KNO	ACT	RAN	FIR
Dependent							
MLC	-.09	-.00	-.01	-.08	-.06	-.05	.33
MCRR	.08	.07	-.08	.07	.25	.16	-.02
Independent							
AGE	1.00						
EXP	.83	1.00					
UND	-.40	-.42	1.00				
KNO	.32	.34	-.14	1.00			
ACT	-.07	.01	-.13	.15	1.00		
RAN	.49	.50	-.47	.27	-.03	1.00	
FIR	-.06	.09	.04	.01	.20	-.02	1.00

KEY TO VARIABLES

AGE = Respondent's age in bands of years (**AGEYEARS**)

EXP = Years of professional experience (**EXPERIEN**)

UND = Possession of a university degree (**UNDEGREE**)

KNO = Knowledge of issuing audit opinions (**KNOWLEDG**)

ACT = Area of main professional activity (**ACTIVITY**)

RAN = Rank in firm (partner/non-partner) (**RANKFIRM**)

FIR = Size of firm (Big-Six/nonBig-Six) (**FIRMSIZE**)

MLC = Minimum Level of Confidence (**MLC**)

MCRR = Mean Composite Refined Response (**MCRR**)

Tables 14.2 to 14.5 summarise (on an a group basis), the Pearsonian product-moment correlations between each set of dependent and independent variables, and further within the sets of independent variables.

14.3 The regression models

14.3.1 External auditor group regression models

To investigate the role of personal and firm determinants in explaining EAI attitudes for the EA group, the following regressions were run:

1. MLC = f(AGEYEARS, EXPERIEN, KNOWLEDG, ACTIVITY, RANKFIRM, FIRMSIZE)
2. MCRR = f(AGEYEARS, EXPERIEN, KNOWLEDG, ACTIVITY, RANKFIRM, FIRMSIZE)

The following models (t-values in brackets) resulted:

1. MLC = 3.98 + .51 (FIRMSIZE) Adj. R-squared = 0.10
(38.41) (3.74)
2. MCRR = -.78 + .54 (ACTIVITY) Adj. R-squared = 0.06
(-4.38) (2.81)

The only significant variable in the first equation is FIRMSIZE, suggesting auditors from Big-Six firms demand higher MLCs when compared with auditors of nonBig-Six firms (corroborating the mean MLC for Big-Six auditors at 4.49 and that of nonBig-Six auditors at 4.02). No other variables including RANKFIRM were significant.

The second equation suggests that the MCRR for "non-auditing" external auditors was consistently lower than those of "auditing" external auditors.

In other words, this regression suggests that auditors directly involved in such decision making situations as those outlined in the questionnaire, are more confident of their professional colleagues acting independently than those auditors less directly involved in auditing.

This is in accordance with previous findings of this research, which showed a direct positive correspondence between immediacy to the audit environment and associated cognitive complexity and attitudes to EAI.

14.3.2 Banker group regression models

Table 14.3 presents for the banker group, the Pearsonian product-moment correlations between the independent and dependent variables and within the independent variable set.

The following two regression equations are run:

1. MLC = f(AGEYEARS, EXPERIEN, KNOWLEDG, ACTIVITY, FREQUENT)
2. MCRR = f(AGEYEARS, EXPERIEN, KNOWLEDG, ACTIVITY, FREQUENT)

TABLE 14.3

CORRELATIONS DEPENDENT AND INDEPENDENT VARIABLES

MULTIPLE REGRESSION FOR BANKER GROUP

	AGE	EXP	UND	KNO	ACT	FRE
Dependent						
MLC	-.10	-.16	-.18	.07	.18	.09
MCRR	.04	.11	.04	-.06	-.10	-.03
Independent						
AGE	1.00					
EXP	.79	1.00				
UND	-.21	-.08	1.00			
KNO	.42	.42	-.28	1.00		
ACT	-.03	.01	.05	.19	1.00	
FRE	.19	.16	.08	.25	.31	1.00

KEY TO VARIABLES

AGE = Respondent's age in bands of years (**AGEYEARS**)

EXP = Years of professional experience (**EXPERIEN**)

UND = Possession of a university degree (**UNDEGREE**)

KNO = Knowledge of issuing audit opinions (**KNOWLEDG**)

ACT = Area of main professional activity (**ACTIVITY**)

FRE = Frequency of use of audited accounts (**FREQUENT**)

MLC = Minimum Level of Confidence (**MLC**)

MCRR = Mean Composite Refined Response (**MCRR**)

However, in both cases it was not possible to develop a statistically significant model and so, on this basis we have no evidence of personal features systematically driving views on EAI as held by our banker respondents.

14.3.3 Credit manager group regression models

Table 14.4 presents for the credit manager group, the Pearsonian product-moment correlations between the independent and dependent variables and within the independent variable set. The same two regression equations as those run for the banker group, are run for the credit manager group. Only the MLC regression equation, which is stated below (t-values in brackets), is significant - albeit with weak explanatory power:

MLC = 3.77 + .27 (FREQUENT) Adj. R-squared = 0.02

(38.18) (2.09)

Interpreting the above equation (somewhat roughly), it would appear that credit managers who use audited accounts more often, demand higher levels of confidence in the professional independence of external auditors, than do their colleagues of the same calling who do not have recourse to audited financial statements as frequently. On that basis, there is (weak) empirical evidence to suggest some direct association between the levels of MLC demanded by CMs, and the frequency with which they use audited financial statements.

TABLE 14.4

CORRELATIONS: DEPENDENT & INDEPENDENT VARIABLES

MULTIPLE REGRESSION FOR CREDIT MANAGER GROUP

	AGE	EXP	UND	KNO	ACT	FRE
Dependent						
MLC	.03	.03	-.03	-.03	-.08	.15
MCRR	-.03	.03	-.07	.03	.09	-.11
Independent						
AGE	1.00					
EXP	.48	1.00				
UND	-.02	.02	1.00			
KNO	.09	.20	.05	1.00		
ACT	-.17	-.17	-.22	-.03	1.00	
FRE	-.02	.21	-.02	.12	.05	1.00

KEY TO VARIABLES

AGE = Respondent's age in bands of years (**AGEYEARS**)

EXP = Years of professional experience (**EXPERIEN**)

UND = Possession of a university degree (**UNDEGREE**)

KNO = Knowledge of issuing audit opinions (**KNOWLEDG**)

ACT = Area of main professional activity (**ACTIVITY**)

FRE = Frequency of use of audited accounts (**FREQUENT**)

MLC = Minimum Level of Confidence (**MLC**)

MCRR = Mean Composite Refined Response (**MCRR**)

14.3.4 Internal auditor group regression models

Table 14.5 presents, for the IA group, the Pearsonian product-moment correlations between the dependent and independent variables and within the independent variable set. Again, the same two regression models as for the BA and CM groups are run. Both models revealed low but statistically significant explanatory power.

The equations developed are:

MLC = 3.87 + 0.28 (KNOWLEDG) Adj. R-squared=0.02

(51.54) (2.36)

MCRR = -0.47 + (- 0.34) (ACTIVITY) Adj. R-squared=0.02

(-3.34) (-2.12)

The first equation suggests that the extent of an IA's knowledge in terms of "issuing audit opinions" is positively related with the MLC demanded by him/her. No other personal characteristics were seen to exhibit explanatory potential for the MLC variable.

The second equation suggests that an IA's composite responses on the EAI situations in the questionnaire are negatively associated with his/her principal or main activity being that of an internal auditor. In other words, IAs working principally as internal auditors, are more concerned about such EAI issues than IAs less directly involved with internal auditing.

TABLE 14.5

CORRELATIONS: DEPENDENT AND INDEPENDENT VARIABLES

MULTIPLE REGRESSION FOR INTERNAL AUDITOR GROUP

	AGE	EXP	UND	KNO	ACT	FRE
Dependent						
MLC	.03	.01	.03	.15	.06	-.00
MCRR	.01	.08	.08	-.07	-.14	.05
Independent						
AGE	1.00					
EXP	.41	1.00				
UND	-.20	.04	1.00			
KNO	-.05	.27	.15	1.00		
ACT	.01	-.03	-.03	-.02	1.00	
FRE	.12	.28	.10	.23	-.20	1.00

KEY TO VARIABLES

AGE = Respondent's age in bands of years (**AGEYEARS**)

EXP = Years of professional experience (**EXPERIEN**)

UND = Possession of a university degree (**UNDEGREE**)

KNO = Knowledge of issuing audit opinions (**KNOWLEDG**)

ACT = Area of main professional activity (**ACTIVITY**)

FRE = Frequency of use of audited accounts (**FREQUENT**)

MLC = Minimum Level of Confidence (**MLC**)

MCRR = Mean Composite Refined Response (**MCRR**)

14.4 Summary and implications of regressions

This chapter explores whether the personal characteristics of respondents affect their views on EAI, in particular as measured by their Minimum Level of Confidence (MLC) and a composite assessment (MCRR) of their judgements on the twenty EAI situations in the research questionnaire.

Only certain regression models were significant, and then only weakly so. In fact, it was not possible to develop any regression equation at all for the banker group.

The variable ACTIVITY (1 = closely involved with the mainstream professional activity, 0 = not) was significant for both external and internal auditor groups, although interestingly in opposing (signs) direction.

The positive sign in the first case (external auditors) suggested greater confidence in the auditor's ability to act independently, the closer he/she is to the external audit task and environment. Conversely, in the second case (internal auditors), the greater the extent of the internal auditor's involvement with his/her main specialism, the greater was the concern registered in terms of EAI within the twenty research situations.

That is to say, whether or not an external auditor pursued external auditing as his main professional activity, or whether or not an internal auditor pursued internal auditing as his, appeared to be of explanatory help in developing group composite views on EAI.

Other results of relevance, in terms of a group's expectations of or assessment about the independence of external auditors, are the positive relationships noted between MLC (Minimum Level of Confidence demanded in the independence of external auditors) and:

1. the extent of knowledge professed by internal auditors about the process of issuing audit opinions
2. the frequency registered by credit managers in terms of their use of audited financial statements.

Both results are consistent with arguments suggestive of increased cognitive complexity with regard to the decision task being associated with a greater understanding of or immediacy to the EA environment.

Generally however, the explanatory power of the models is low and there is no instance of more than one of the independent (personal) variables being significant. Within the constraints of the research instrument and methodology, this suggests a lack of influence of personal characteristics on respondent views on EAI.

To explore specific influences on auditor views on EAI, an attempt was made to see whether a respondent's size of audit firm (i.e. Big-Six or nonBig-Six) and rank (partner or non-partner) affected his/her views on EAI.

The only significant relationship noted was between MLC and firm size, indicating higher levels of confidence in the independence of EAs being demanded by Big-Six auditors, as compared to nonBig-Six auditors - a finding consistent with agency theoretic arguments.

Thus it was surprising that no significant relationship was noted between an auditor's partner/non-partner rank in the firm and EAI views - a finding inconsistent with the agency theory basis of Watts and Zimmerman [1986].

Generally however, the present empirical evidence of this chapter does not indicate a strong association between personal background and views on EAI. Further, the findings of this chapter and those of the discriminant analyses of the previous chapter, suggest that the views of audit users on EAI are determined more by the intrinsic facts (cues) contained within EAI situations or scenarios, rather than their personal characteristics or background. Such information is relevant in the formulation of ethical pronouncements for external auditors.

In terms of findings for the external auditor group alone, the research underlying this chapter was not able to provide evidence confirming that the views of external auditors regarding EAI in "real world" operation (by means of the MCRR variable), are at all influenced or determined by either the auditor's rank within, or the size of, his/her audit firm.

Thus, while it is possible that other audit firm determinants may be helpful in explaining views held by external auditors on their own professional independence, this research indicates this is not so for either the size of, or rank within, the audit firm.

As such, in the context of the rank and firm size determinants only, there appears to be no evidence of any form of "acculturation" [Kelman, 1972] taking place, with respect to the EAI views of audit professionals within firms of similar size, or of similar rank across firms of varying size.

This finding is supportive of those of Farmer et al [1987: 10] who, in their research regarding auditor perceptions of their own professional independence, generated "only mild support" for the contention that, "an acculturation effect is taking place" across the ranks of (qualified) professionals within audit firms.

CHAPTER XV

SUMMARY AND CONCLUSIONS

This chapter provides a summary of the more important aspects of the research conducted within the context of this thesis, and offers some concluding remarks derived from its underlying results. In doing so, the chapter is structured within four sections, which respectively, are devoted to the following considerations:

1. Limitations of the research
2. Significance and main findings of the research
3. Possibilities of further research
4. Recommendations derived from the research

15.1 Limitations of the research

The main limitation of this research is the fact that it cannot claim with certainty to be true of, or completely reflective of the actuality present in the "real world".

For, even though the circumstances described in each of the twenty audit situations were generally conceived from reality, the situations themselves can at best be described as clones of reality, and thus inferences or results derived from responses to them, must also suffer from that limitation.

The second main limitation relates to the fact that it does not examine the views of all groups of persons (be they users or issuers) of audited financial statements. Perforce, and for pragmatic considerations, the research was restricted to the views of only four selected groups of such persons. Thus, the results derived may not be equally or readily applicable to other groups of such persons.

However, even disregarding the above group deficiency, the research must suffer from the fact that even in terms of those groups used for the research - the actual groups used were only samples of the total population from which they hail. Accordingly, all the limitations of sampling (bias, variability etc.) may be attributed to the research.

Further, in the cases of those groups (CMs and IAs) where mailed questionnaires were used, despite the general lack of bias detected when testing for bias, their responses may nevertheless still remain open to some form of non-response bias. If so, that deficiency may weaken the validity of some results so obtained.

The third main limitation of the research is the nature of the research instrument - i.e. the questionnaire survey.

Questionnaire surveys always remain open to the possibility that, even assuming correct and uniform interpretation by respondents of questions posed in the questionnaire, respondents may not have answered truly, or even where they have answered truthfully, then this may be with less than complete candour. If that be the case, then to that extent, any results derived from such responses will also tend to suffer from the same deficiency.

Equally, by virtue of the questionnaire basis of the research, it was restricted to examining only specific and limited aspects of views on external auditor independence. In no way, can this research be construed as an examination of all the multiple issues circumscribed within the totality of the external auditor independence construct.

Having identified the limitations inherent in the research, it is only proper to state that, being aware of these limitations, attempts were made to overcome them when conducting the research (e.g. pilot testing, detailed questionnaire completion instructions, NRB-tests etc). Accordingly, the impact of these limitations are likely to be less significant than if no regard at all had been taken of them when conducting the research.

15.2 Significance and main findings of the research

The main significance of this research is that against the background of much reported and perceived concern with EAI, it offers current empirical evidence as to whether such concern is with (without) basis.

The research is also significant in that it is the most recent academically-based empirical evidence of concern with EAI conducted in the UK, since that conducted by Firth in 1980 and 1981.

Nevertheless, the content matter of both researches are similar. Firth [1980] explored EAI views in 29 auditor-client relationships between five groups. This research concurrently explores EAI views in 20 auditor-client relationships between four groups and within one group. The present research is more intensive than Firth's 1980 which considered 389 respondents, whereas the total number considered in this research was 707.

Another significant aspect of this research is that it uses a (mainly) multivariate approach to the study of EAI. While many writers have affirmed the multivariate nature of EAI, it is believed this is the first attempt (UK or US) to search for the same using possibilities offered by the multivariate techniques of factor and discriminant analysis.

While previous research has been helpful in identifying auditor-client relationships of concern to users of audited statements, they have not been extremely helpful when concurrently judging and ranking the "cues" contained in several such relationships. Thus, in that sense, it is believed this research breaks new ground.

The overall results tended to confirm a similarity in approach to EAI views between EAs and BAs on the one hand and IAs and CMs on the other. For example, amongst the twenty situations, the first set recorded their highest concern with EAI in Situation 12, whereas both in the second set recorded comparable concern in Situation 1.

Equally, with negative group means for all twenty situations, both groups in the second set appeared concerned (at least to some extent) with EAI in all of them. However the two groups in the first set recorded no concern in at least two of the twenty situations - sharing in common one of them (Situation 1).

The situations did not evoke <u>extreme</u> concern from users about the EAI underlying each of them. In no situation for any of the four research groups was the level of concern indicated greater than -2 (i.e. low).

However it is true that in virtually all situations where concern was manifest, the EA group reflected less concern than the user groups. This would appear to concur with the findings of Firth [1980: 463], who states his "results showed that ... the users of financial statements were much more sceptical of (EAI)" than "those of the major British professional bodies" to which all UK auditors (Issuer Group) must belong.

However, flying in the face of such findings, is the fact that the Minimum Level of Confidence (MLC) of the Audit Issuer Group (external auditors) was the highest of all groups, indicating that (theoretically, at least) external auditors place greater expectations on their standards of independence than those placed on them by the users of audited financial statements - a phenomenon which may be one expression of the process of (professional and ethical) acculturation that auditors share in while becoming qualified accountants.

Nevertheless, the results did reveal that in a majority of the questionnaire situations EAI is not viewed consistently by issuer and user groups. When assessed in terms of refined responses, significant differences of view prevailed between these groups in a range of 60% to 85% of the twenty questionnaire research situations.

Even when assessed on a MANOVA (multiple analysis of variance) basis, within sets of situations grouped broadly on the classification sets identified in ICAEW [1987], the responses of the user groups revealed for all four sets of situations, consistently significantly differing views from those of the external auditors.

Accordingly, the agency theory implication of no significant differences of perception on EAI between users and issuers, and the associated null hypothesis of no significant differences is largely not borne out by this research.

In addition to considering differences between the EA group and the three audit user groups, the research also considered differences and similarities within the EA group - based on a Big-Six nonBig-Six auditor and a partner v. non-partner basis.

Having regard to mean refined group responses only, it appears Big-Six auditors tend to share similar EAI views with partner auditors, and nonBig-Six auditors tend to share the same (i.e. similar views) with non-partner auditors. In fact the last two groups showed mean (negative) concern in the same seventeen situations, and mean (positive) assurance in the same three other of the twenty situations (1, 3 and 10).

The EAI views of Big-Six and partner auditors appeared less concerned, showing consistent (negative) concern in only nine situations and (positive) assurance in seven situations. Thus, it is fair to conclude that Big-Six and partner auditors share more assured (less concerned) views of EAI, when judged against comparable views as held by non-partner or nonBig-Six auditors.

The search for significant response differences between the four intra-auditor groupings revealed interesting results in that broad consistency of responses within these groups were noted. When applied to these intra-group comparisons, consistent significance results were obtained using either the parametric t-test or the non-parametric Mann-Whitney test.

Only four situations (7, 11, 14 and 15) had significant differences between Big-Six and nonBig-Six auditors, whereas five situations (4, 7, 11, 17 and 20) revealed significant differences between partner and non-partner auditors.

When considered within sets of situations as broadly suggested by ICAEW [1987], contrasting results were obtained. Differences within the EA group on a partner v. non-partner basis revealed consistently not significant differences.

However the same comparison between Big-Six v. nonBig-Six auditors revealed for three of the four sets, significantly differing results. The only set not to reveal such differences was the set relating to "Personal Relationships".

Based on the preceding, one may infer virtually consistent significant differences of EAI views between Big-Six and nonBig-Six auditors, but a reasonable identity of EAI views between partner and non-partner auditors.

In addition to identifying consistently significant differences of EAI views (in a majority of the twenty situations) between external auditors and the three audit user groups, the research also identified areas of notable concern with EAI. This was done by isolating and considering on a group-by-group basis, those situations where refined responses indicated concern for at least 35% of the relevant group.

Judged on that basis, least concern with EAI in the twenty questionnaire situations was registered by the EA group - they recorded notable concern in only 9 of the 20 situations. By the same token, most concern with EAI was recorded by the IA group - they recorded notable concern in 19 of the 20 situations.

In comparable terms, the banker and credit manager groups had about the same level of concern, recording notable concern in, respectively, 16 and 17 of the 20 situations. The overall inference to be drawn from the extent of notable concern identified in the four groups is that EAI issues tend to be regarded with more concern by audit-user groups than by audit issuers.

Having identified significant differences between the external auditor group and, in turn, each of the three audit user groups, the research then attempted to determine why this was so, premising this determination on three distinct possibilities.

The first was that each group brought to bear its own and unique construct mould to EAI - so significantly differing group views are an expression of variances between group constructs. This possibility was explored through the use of factor analysis - appropriate to the search of such underlying dimensions.

The second was the possibility that significant group differences arose because each group made differing use of the individual EAI aspects contained within the twenty audit situations. This possibility was explored through the use of discriminant analysis - appropriate to the search for such differentiating cue usage.

The third was the possibility that, within groups, individual personal characteristics are causally related to views on EAI. In assessing such personal characteristics (inter alia) features such as the respondent's age, education, experience in using audited financial statements were considered.

This third possibility was explored through the use of multiple linear regression - appropriate to the search of linear-based models that express through basic arithmetic functions and due weight, the linear nature of relationships so identified.

The factor analytic search provided basis to suggest that there may indeed be a single meta-concept underlying EAI - hence the inability to reify into meaningful factors. However, the analysis also revealed that each group had a differing number of identified (but not reified) constructs underlying their views of EAI.

Thus, the CM group revealed only one, the IA group two, the BA group three and the EA group four perceptible constructs underlying their views of EAI. This finding gave rise to the suggestion that each groups' views on EAI are structurally bound by the cognitive structure that it brings to the issue.

On that basis, it was put forth that EAs being most closely connected with the issue of EAI have the most "sophisticated" opinions on matters relating to it - a phenomenon made manifest in their greatest number of identifiable constructs underlying their views of EAI.

By the same token, CMs being possibly least connected (among the four research groups) with the issue of EAI have the least "sophisticated" opinions on matters relating to it - a phenomenon made manifest in their smallest number of identifiable constructs underlying their views of EAI.

Consistent with the greater number of dimensions (constructs) seen to be underlying the EA views of BAs, the LDA model discriminating their views had the highest number (five) of discriminating situations between that group and the EA group. This feature was corroborated by results of the LDA model discriminating Big-Six v. nonBig-Six auditors, which in similar vein, also revealed a relatively high number (four) of discriminating situations.

Equally, the fewest dimensions revealed for the credit manager group was corroborated by the fewest number (two) of discriminating situations between that group and the EA group.

The LDA models tended to confirm the uniqueness of each group in that, with one limited exception, the situations that discriminated EAI views of each user group from those of the EA group were unique only to that model. The only exception was Situation 18, which contributed weakly (11.5%) to the EA v. CM model and rather more strongly (35.1%) to the EA v. BA model.

Accordingly, no consistent pattern of discrimination on situations across groups was detected. Even when judged broadly along the four classifying sets identified in ICAEW [1987], no manifest pattern was detected. This was because discriminating situations arose in all sets of classifying situations and with varying frequency.

The attempt to identify possible linkage between some of the personal characteristics of respondents and their composite views on EAI, as expressed in their MLC and Mean Composite Refined Responses met with limited success.

While audit FIRMSIZE (Big-Six or nonBig-Six) was of some explanatory value in determining the MLC response of the audit issuer group, their principal area of ACTIVITY within occupational domain was of only very limited indicative power in identifying their overall views of EAI, as expressed in each respondent's MCRR.

In terms of the credit manager group and the MLC response only, the frequency (FREQUENT) with which respondents used audited financial statements was found to be of some limited indicative power.

Finally, with regard to the internal auditor group only, respondent's KNOWLEDGE about issuing audit opinions and their principal ACTIVITY (main area within professional functions) were of some limited assistance in determining their respective Minimum Level of Confidence and Mean Composite Refined Response. The other personal characteristics offered for consideration within the multiple regression models did not appear to be of consequence.

In fact, the highest adjusted r-squared statistic for any of the five multiple regression models constructed in this context was .10. Consequently, the general conclusion drawn was that there is no strong evidence of an association between personal characteristics and respondents' views on external auditor independence when considered in group terms.

Nevertheless, given that it was not possible to develop regression models for some groups and dependent variables, these findings must necessarily be of only limited applicability.

15.3 Possibilities of further research

It is somewhat optimistic (naive) to present totally confirmed results from one set of research exercises on a particular issue. Thus, findings obtained in this research are not offered with total conviction and without qualification.

However, a replication of such an inter-group and intra-group research exercise, assuming similar results are obtained, should help in establishing their more general validity. Thus a replication of this research is strongly recommended.

In particular, research of this nature should also be conducted within a pan-European context, particularly with the imminent arrival of 1993 and the Single European Market. The cultural dimension underlying EAI must not be overlooked.

Further, in an attempt to recognise the pervasive multivariate flavour of EAI, efforts should be made to explore the pictorial potential underpinning EAI by capturing its multi-dimensional flavour through the use of multi-dimensional scaling. This will be of help to both "sophisticated" and "less sophisticated" groups concerned with the issue of external auditor independence.

Based on results from such research, changes to ethical rulings and/or guidelines should be introduced. Thus, prior to such introduction, empirical research could be undertaken to ensure that the proposed changes would indeed satisfy the financial and other communities concerned with the issue of EAI.

An area of important concern that can be examined in future research is the issue of costs/benefits analysis. Assuming changes were to be suggested by the research, it would be sensible to assess how the desired changes would impact in cost terms.

As the structure of the financial community is under constant change, its needs and views are also under constant evolution. Accordingly, empirical research could be undertaken at regular cycles to ensure that little or no gap exists between the expectations of the financial world and the auditing profession, in relation to external auditor independence.

15.4 Recommendations derived from the research

The fact that virtually each one of the twenty audit situations registered at least some level of concern with EAI and that in many of these notable concern was registered, is strong evidence of consistent and general concern with external auditor independence.

However, despite the fact that independence in fact is more important and consequential than the appearance of it, what appears to be of concern, is not independence in fact, but rather independence in appearance.

Thus, given that it is impossible to determine in advance whether an auditor will be independent in fact, and that audit users' views must remain paramount, it is very important for the auditing profession not only to pay regard to, but to be **seen** to be paying regard to users' fears and concerns on EAI.

Hence, such concerns as indicated by users must first be thoroughly identified and established, and then fully recognised in ethical terms by the audit profession. At the same time it must be declared, that it is not EAI itself that is being addressed (because independence in fact can never be guaranteed or fully safeguarded by legislation or regulation), but merely areas of concern on EAI that are being addressed.

Such overt public involvement should go some way to appease fears relating to the perceived independence of professional auditors. Indeed, the more public and open involvement by suitably informed non-auditors within the newly constituted Auditing Practices Board (APB) of the CCAB, will very likely have just such an effect.

In identifying concerns about and within EAI, regard should be taken for the possibility that varying group cognitive structures may exist, as suggested by the factor analytic findings determined in this research. Indeed, if cognitive structure is found to have consistent validity, this fact should be explored further and relevant findings given due recognition in any revised ethical guidelines for auditors.

The auditor's effectiveness, and ultimately his livelihood, depends on the belief of audit users in his total integrity and professional independence. Thus, there is little doubt that more specific, precise but yet detailed guidelines covering the appearance of external auditor independence, would provide the UK auditing profession with a significant boost to the independence attributed to it and individual auditors.

However, since the concept of independence in appearance is concerned with the collective perceptions of the users of audited financial statements (including auditors), it follows that any specific rules covering EAI in appearance should be based on such perceptions. Determining what those perceptions are, must be the first step towards a solution of the current external auditor (professional) independence problem, and this research has been a contribution in that direction.

APPENDIX A

LIST OF ABBREVIATIONS USED

AAA	American Accounting Association
ACA	Associate of ICAEW or ICAI
ACACA	Associate of CACA
ACCA	Association of Certified Accountants - UK (Now CACA - see below)
ACMA	Associate of ICMA
AICPA	American Institute of Certified Public Accountants
AMEX	American Stock Exchange (also known as ASE)
ANOVA	Analysis of Variance
APB	Auditing Practices Board (UK) or, Accounting Principles Board and its Opinions (USA) (precursor of the FASB)
APC	Auditing Practices Committee of the CCAB (UK)
ARS	Accounting Research Study (issued by AICPA)
ASA	Australian Society of Accountants
ASB	Accounting Standards Board (UK) or, Auditing Standards Board of the AICPA or, Auditing Statements Board of the UEC
ASC	Accounting Standards Committee of the CCAB (UK) (formerly the Accounting Standards Steering Committee (ASSC)

ASE	American Stock Exchange (also known as AMEX)
ASR	Accounting Series Release (SEC issued)
AUTA	Association of University Teachers of Accounting (now BAA)
BAA	British Accounting Association formerly AUTA)
CA	Member of ICAS or CICA
CACA	Chartered Association of Certified Accountants (formerly ACCA)
CAR	Commission on Auditors' Responsibilities of the AICPA
CCAB	Consultative Committee of Accountancy Bodies (UK)
CICA	Canadian Institute of Chartered Accountants
CIPFA	Chartered Institute of Public Finance and Accountancy (UK)
CPA	Certified Public Accountant (USA) (member of AICPA)
DoT	Department of Trade
DTI	Department of Trade and Industry
EDP	Electronic Data Processing
FAS	Financial Accounting Standard (issued by FASB)
FASB	Financial Accounting Standards Board (USA)
FCA	Fellow of one of ICAEW, ICAI or CICA
FCACA	Fellow of CACA
FCMA	Fellow of ICMA

GAAP	Generally accepted accounting principles (USA)
GAAS	Generally accepted auditing standards (USA)
GAO	General Accounting Office (USA)
GEEC	Group d'etudes des Experts Comptables (European Accountants Study Group)
IAS	International Accounting Standard
IASC	International Accounting Standards Committee
ICAA	Institute of Chartered Accountants in Australia
ICAEW	Institute of Chartered Accountants in England & Wales
ICAI	Institute of Chartered Accountants in Ireland
ICAS	Institute of Chartered Accountants of Scotland
ICMA	Institute of Cost and Management Accountants (UK)
IdW	Institut der Wirtschaftspruefer in Deutschland
IFAC	International Federation of Accountants
IIA	Institute of Internal Auditors
MAS	Management Advisory Services
NYSE	The New York Stock Exchange
ROA	The 'Research Opportunities in Auditing' Program
SAS	Statement of Auditing Standards (AICPA)

SE	Stock Exchange (usually London)
SEC	Securities and Exchange Commission (SEC)
SFAC	Statement of Financial Accounting Concepts (USA)
SFAS	Statement of Financial Accounting Standards (USA)
SIA	Society of Investment Analysts
SSAP	Statement of Standard Accounting Practice (UK)
TAM	The Accountant's Magazine
UEC	Union Europeene des Experts Comptables Economiques et Financiers
UK	United Kingdom of Great Britain and Northern Ireland
US	United States
USA	United States of America

APPENDIX B

REMINDER AND SECOND COPY

THE INDEPENDENCE OF EXTERNAL AUDITORS RESEARCH QUESTIONNAIRE

For Completion By
Selected Members of

THE INSTITUTE OF INTERNAL AUDITORS - UK

13 Abbeville Mews
88 Clapham Park Road
London SW4 7BX

- PARTICIPATION IN THIS RESEARCH AND RESPONSES TO THIS QUESTIONNAIRE WILL REMAIN STRICTLY CONFIDENTIAL.

- PLEASE RETURN YOUR COMPLETED QUESTIONNAIRE IN THE ATTACHED STAMPED ADDRESSED ENVELOPE BY JULY 31, 1990.

THANKYOU VERY MUCH FOR COMPLETING THE QUESTIONNAIRE

THE INDEPENDENCE OF EXTERNAL AUDITORS
RESEARCH QUESTIONNAIRE

INTRODUCTION

This questionnaire is designed to find out some of your views on the independence of external auditors. The independence attributed to external auditors is often said to be the chief distinction between their work and that of our profession. If this is so, it is important to know how we view the independence of external auditors. Accordingly, your help in completing this short questionnaire is greatly appreciated. Your participation in the research and your responses will, of course, be kept TOTALLY CONFIDENTIAL.

INDEPENDENCE DEFINED

The questionnaire is about "External Auditor Independence". This is defined as the quality of the auditor being objective, unbiased, and free from client influence.

QUESTIONNAIRE COMPLETION

The questionnaire consists of three separate sections and instructions to complete each section are provided within the relevant section. However, please note the times at which you start and finish the questionnaire by filling in the box below and the one on page 10.

TIME AT WHICH QUESTIONNAIRE COMMENCED: ☐

SECTION 1

This section presents 20 unrelated situations, each of which describes a particular relationship between a firm of auditors and one of its clients. Having regard to the guidance given below, please consider the facts in each situation and then indicate the LEVEL OF CONFIDENCE you would have in the relevant auditor acting "independently" with regard to the client's next set of accounts. You should provide your response by circling the appropriate numbered level on the scale that follows each situation. For this section you should:

1. Consider only the information provided.
2. Respond on the basis of what you expect WOULD really happen, and NOT on the basis of what you consider should happen.
3. Assume the following (unless specifically otherwise indicated):
   a. The auditor is a "Top Ten" UK firm of chartered accountants.
   b. The survival of the company being audited is not in doubt.
   c. The client's shares are quoted on the London Stock Exchange.
   d. The fees earned by the auditor from the company are small in relation to the auditing firm's gross fee income.

The end of this section poses a single question on a generalised aspect of this issue.

SITUATION 1.

The auditors to a large PLC have held office for the last 15 years and have restricted their services to the PLC to only the audit function.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 2.

A medium-sized retail company continues to suffer from cashflow and liquidity problems and has delayed paying creditors where possible. Although the audit fee for the previous year has been paid, a significant invoice from the consulting company associated with the auditors is unpaid.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 3.

A firm of chartered accountants provides a private company employing about 100 employees with certain accounting services in addition to performing the statutory audit. Essentially these services are preparing the annual financial statements.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 4.

A firm of chartered accountants has been offered the audit of a reputable printing and stationery company on the unwritten condition that the firm would satisfy all its printing and stationery needs through the company. In return, the company would sell to the auditing firm at wholesale prices. The firm has accepted the audit.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 5.

A US corporation that ranks in the top 100 of the Fortune listing has a fully-owned UK subsidiary. The auditors of the US corporation are a "Big Eight" firm of CPAs and its overseas subsidiaries are audited by the local associates of that firm. Exceptionally however, the UK subsidiary is audited by a medium-sized 15-partner firm of chartered accountants. In relation to the UK subsidiary only:

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 6.

A firm of chartered accountants is still owed the fees for the previous year's audit of a client when commencing the client's current audit.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 7.

A firm of chartered accountants has its offices in an office block owned by one of its clients. The firm occupies roughly 30% of the premises and the client and other tenants occupy the other 70%. The firm pays a fair market rental and the transaction appears to be on an arms-length basis.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 8.

A partner in a firm of chartered accountants holds as a trustee, 7% of the voting equity in a small listed company for which his firm acts as auditors to the company. The partner in question does not participate in any way in the audit of the company and his shareholding is clearly stated in the company's annual accounts.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 9.

A former partner in a firm of chartered accountants is now the managing director of a large company, the audit for which he was previously responsible. The partnership agreement prohibits participation by terminating partners in future profits of the partnership and pension payments based thereon. The firm of chartered accountants continues to act as auditors to the company.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the relevant scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 10.

The directors of a large and well-known public group company, exercise strict financial control within the group. Like all costs, audit fees are carefully budgeted and controlled and are also agreed with the auditors before each audit commences. Budget overruns, if accepted, are done so after much discussion with and explanation by the auditors.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 11.

The UK subsidiary of a large US-based multinational group has a December 31 year-end and like all other subsidiaries must file its audited financial statements with the US parent by the following January 12. In turn, the group parent releases the audited group results by January 21. In doing so the directors of the parent seek to present the image of an efficiently managed group.

Given that an audit must take a minimum of time after the year-end and such audit deadlines are not the norm in the UK, in relation to the UK subsidiary only:

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 12.

A client of a small firm of chartered accountants, is the only listed company audited by the firm. The fee revenue-generated by this audit is approximately 10% of the firm's gross billings.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 13.

In addition to performing the audit, the auditors to a major PLC have provided it with management consultancy services over the past years. These services have always been advisory only and the related billings have averaged about 40% of the year's audit fee.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 14.

A PLC requested tenders for the audit of its annual accounts and the lowest tenderer was appointed auditor. The appointed firm tendered much below its first year's estimated costs, with the intention of more than recovering these "losses" in future years.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 15.

An investment trust has a shareholding in a PLC. A director of the investment trust is also a partner in the PLC's auditors and is responsible for its audit. The size of the trust's holding in the PLC is not material either to the trust or the PLC in question.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 16.

The 6-partner office of a Top Ten firm of chartered accountants in a small provincial town has as one of its clients, a medium-sized manufacturing PLC, which is also the largest employer in the area.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 17.

A partner in an accounting firm recently made responsible for the audit of a major UK retailing group was, until four years ago, its finance director. While the accounting firm itself has been auditors to the group for many years, the partner in question has not been involved in any way with it or its audit during these years.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 18.

A small provincial office of a Top Ten firm of chartered accountants has a manufacturing PLC as one of its clients. While the PLC generates around 20% of the office's gross billings, it accounts for less than 1% of the firm's total UK gross billings.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 19.

The chairman of a large UK multinational company, is also a life peer and a leading figure in the City of London. He is a director in several public companies and carries much political clout. As a consequence, he is generally regarded as a force to be reckoned with.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

SITUATION 20.

The managing director of a reasonably large private manufacturing company has a brother who is a partner in the company's auditors. However he is NOT the partner responsible for the company's audit.

What level of confidence have you in the independence of the firm of external auditors in this situation? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

GENERAL QUESTION

What do you consider to be the MEDIUM LEVEL OF CONFIDENCE in the independence of external auditors that users of audited financial statements may justly demand? Circle your response at the appropriate numbered level on the scale alongside.	LEVELS OF CONFIDENCE						
	NONE	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH	TOTAL
	0	1	2	3	4	5	6

THE INDEPENDENCE OF EXTERNAL AUDITORS
RESEARCH QUESTIONNAIRE - SECTION 2

AUDITOR INDEPENDENCE AND INCORPORATION OF AUDITING FIRMS

This section raises issues relating to, and asks your views on, the incorporation of auditing firms and its implications for auditor independence.

The UK government has stated that in accordance with the Eighth Directive of the European Economic Community, it will shortly permit professional auditing/accounting firms, which currently operate as partnerships with unlimited liability, to incorporate as limited liability companies.

Incorporation may have implications for the professional independence of auditors and thus the value given to audited financial statements by their users, particularly the business community. Accordingly, this section of the questionnaire seeks your views on some of the important issues underlying the incorporation of accounting firms. Having regard to the definitions and clarifications below, please answer the questions on the next page by circling the appropriate response.

DEFINITIONS

An "INSIDE NON-PROFESSIONAL SHAREHOLDER" is one who is employed by the relevant incorporated firm of accountants, but is not a qualified accountant with a practising certificate.

An "OUTSIDE SHAREHOLDER" is one who is not employed by the relevant incorporated firm of accountants nor is a retired employee of the firm or a trust holding shares on behalf of employees, former employees or their dependants.

Please now answer the questions on the next page.

THE INDEPENDENCE OF EXTERNAL AUDITORS
RESEARCH QUESTIONNAIRE - SECTION 2 (continued)

AUDITOR INDEPENDENCE AND INCORPORATION OF AUDITING FIRMS

PLEASE CIRCLE THE APPROPRIATE RESPONSE

	QUESTIONS	RESPONSES
1.	Do you consider auditor independence to be compatible with the incorporation of professional audit firms?	YES NO
2.	Present Company Law in the UK requires an annual audit for all companies. If audit firms were incorporated, they would be audited by other audit firms. Do you consider this a problem for auditor independence?	YES NO
3(a)	Should incorporated firms of accountants that perform audits be permitted "INSIDE NON-PROFESSIONAL SHAREHOLDERS"	YES NO
3(b)	Assuming such permission is to be granted, should it be given by:	COMPANY LAW ACCOUNTING BODY
3(c)	If such shareholders were granted voting rights, what percentage limit should be placed on the proportion of voting rights permitted to be held by them? (The EEC Directive limits this to <50%)	25% - 49% 10% - 24% <10%
3(d)	Should that limit be set by:	COMPANY LAW ACCOUNTING BODY
4(a)	Should incorporated firms of accountants that perform audits be permitted to have "OUTSIDE SHAREHOLDERS"?	YES NO
4(b)	Assuming such permission is to be granted, should it be given by:	COMPANY LAW ACCOUNTING BODY
4(c)	If such shareholders were granted voting rights, what percentage limit should be placed on the proportion of voting rights permitted to be held by them? (The EEC Directive limits this to <50%)	25% - 49% 10% - 24% <10%
4(d)	Should that limit be set by:	COMPANY LAW ACCOUNTING BODY

THE INDEPENDENCE OF EXTERNAL AUDITORS
RESEARCH QUESTIONNAIRE - SECTION 3

This section asks for some anonymous personal details in order to allow a more meaningful and comprehensive analysis of the results of the questionnaire.

PLEASE COMPLETE OR CIRCLE AS APPROPRIATE

1. YOUR AGE IN YEARS:

<25 25-29 30-34 35-39 40-44 45-49 50-54 55-59 >59

2. YEARS OF EXPERIENCE USING AUDITED COMPANY ACCOUNTS:

<5 5-9 10-14 15-19 20-24 25-29 30-34 >34

3. YOUR KNOWLEDGE ABOUT ISSUING AUDIT OPINIONS IS:

MINIMAL MODEST EXCELLENT TOTAL

4. DO YOU HAVE A DEGREE OR EQUIVALENT ACADEMIC QUALIFICATION:

YES NO

5. THE FREQUENCY WITH WHICH YOU USE AUDITED ACCOUNTS IS:

NEVER SELDOM AVERAGE OFTEN ALWAYS

6. YOUR PRINCIPAL BUSINESS ACTIVITY IS IN:

PERSONAL FINANCE **CORPORATE FINANCE** **FINANCIAL MANAGEMENT**

INTERNAL AUDITING **EXTERNAL AUDITING** **CREDIT CONTROL AND MANAGEMENT** **OTHER**

TIME AT WHICH QUESTIONNAIRE COMPLETED: ☐

1. PLEASE RETURN YOUR COMPLETED QUESTIONNAIRE BY JULY 31, 1990, IN THE ATTACHED STAMPED ADDRESSED ENVELOPE.

2. IF YOU WISH TO MAKE ANY COMMENTS ON THE RESEARCH TOPIC, PLEASE DO SO BELOW AND ON THE REVERSE OF THIS SHEET.

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THANK YOU AGAIN FOR YOUR HELP

APPENDIX C

TOP 20 UK AUDITING (CHARTERED ACCOUNTANTANCY) FIRMS

1991 STATISTICS *

	FIRM NAME	AUDIT-FEES £m	CLIENTS thousands
1.	KPMG Peat Marwick McLintock	253.7	12.3
2.	Coopers & Lybrand Deloitte	246.4	10.0
3.	Ernst & Young	181.5	8.5
4.	Price Waterhouse	156.7	6.1
5.	Touche Ross	111.0	6.8
6.	Arthur Andersen	64.4	2.6
7.	BDO Binder Hamlyn	39.4	3.7
8.	Grant Thornton	24.8	3.3
9.	Pannell Kerr Forster	22.6	2.3
10.	Stoy Hayward	19.6	1.6
11.	Kidsons Impey	15.6	2.2
12	Robson Rhodes	10.2	1.1
13	Moores Rowland	9.7	1.0
14	Clark Whitehill	7.3	0.8
15	Neville Russell	5.6	0.8
16	Baker Tilly	5.1	0.7
17	Moore Stephens	5.1	0.6
18	Finnies	5.0	0.6
19	Hacker Young	3.8	0.5
20	Milne Ross	3.3	0.4

*** Source: Accountancy Age, May 30, 1991: Page 1**

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