

The client acceptance decision and auditor's engagement risk: the role of audit firm alumni

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* Comments are welcome

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ABSTRACT:

Over the last two decades there have been a number of attempts at modelling external audit fees. These models have provided explanations for the level and variability of audit prices. This literature is widely seen as rigorous. However, no previous work has looked at the possible interaction between audit fee and non-price factors such as the one this study proposes, i.e., the relationship between audit fee and audit firm alumni. This study contributes to the existing auditor fee function literature by trying to establish the existence of such relationship. In particular, an engagement risk theoretical background is used to show that the effect of the association of audit firm alumni with their alma mater on audit prices should be negative. In this study, a UK sample comprised of all executive and non-executive directors, who run the quoted companies listed in the London Stock Exchange and are simultaneously qualified CPAs, is used to provide empirical evidence that such an association is significant. The sample is partitioned into two groups, the "large" and "small" auditor clients. The findings suggest that auditing firm alumni who are appointed as finance directors, chief executives or chairmen tend to lower audit fees in the small segment of the audit market (approximately a 14% discount), whereas non-executive directors who have qualified with the incumbent auditor have a propensity to also lower the audit fees that their large clients are charged (approximately a 20% discount). A discussion of the limitations, and the implications for the accounting profession and the regulators are also offered.

Key Words: client acceptance decision; auditor's engagement risk; audit fees; audit firms' alumni

Data Availability: data used in this study was obtained from public sources

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I. INTRODUCTION

The public accounting environment is changing rapidly, with an increased emphasis on the complex client acceptance/continuance decision. Increased litigation exposure and fierce competitive pressures among audit firms for clients have driven the auditors to be engaged in risk-management practices in the audit market (Huss and Jacobs 1991; Francis and Reynolds 1998; Johnstone 2000). These risk-management practices include, among other activities such as screening out high-risk companies, the outplacement of accounting employees into the boardrooms of existing (and prospective) clients.

Certified Public Accountants (CPA) have a significant presence on company Boards of Directors. Large audit firms produce ex-employees on a huge scale. This turnover of CPAs from public accountancy into commerce and industry has resulted in approximately one in six of UK listed company directors being a CPA (Steele and Basioudis 2000). Audit firms, therefore, may have an insight in the boardrooms of existing (and prospective) clients which may help them making the client acceptance/continuance decision. Despite the importance of understanding the role of accounting alumni on audit firm behaviour, very little is known about the association of accounting alumni and risk management. Further, very little research has examined the client acceptance decision and auditor's engagement risk.

One exception, Johnstone (2000), found that in reaching the client acceptance decision, auditors evaluate the client-related risks as well as the audit firm's risk of loss on the engagement. If the client-related risks are evaluated to be extremely high, then auditors have been shown to adjust the elements of the audit risk model (Houston *et al.* 1999) and also have the option to use risk-adaption strategies (e.g. adjusting the audit fee, the data collected, etc.). However, Johnstone (2000) found that auditors do not use risk-adaption strategies to mediate the effects of the client-related risks. As a result, it would appear that the only other possible way of accepting an engagement is by reducing the client-related risks.

My study shows that the outplacement of audit firms' alumni on the clients' (prospective or not) boardrooms reduces the client-related risks and consequently the audit firm's risk on loss on the engagement. The study assesses the role of audit firm alumni in the client acceptance decision by incorporating an engagement risk theoretical framework. By investigating the association between audit firms and their former employees (i.e., auditors' alumni), this study also examines whether this association may affect the level of audit fees. Such an association may affect the costs of delivering an audit and those costs may be passed to the client in the audit fee.

The study tests three hypotheses. First, I hypothesise that, given audit firms outplace their employees in the boardrooms of existing (and prospective) clients, those clients which have alumni of the incumbent auditor as *executive directors* in their boards of directors will pay lower audit fees rather clients that do not have alumni of the auditors in their boards of directors. Second, I predict that audit clients will pay lower audit fees when alumni of the incumbent auditor sit in their boards of directors as *non-executive directors*. Third, by narrowing the executive directors group, I predict that audit clients will pay lower audit fees when alumni of the incumbent auditor sit in client boards of directors as *chairmen, chief executives or finance directors*.

The hypotheses tested using publicly available data, and a multiple regression model similar to prior literature. Using an analysis drawing on auditor's engagement risk, therefore, what follows is an analysis of the reasons why audit firms outplace their alumni into the boardrooms of existing (and prospective) clients, why the auditor's risk on loss on the engagement is reduced and why the audit fees charged should be lower. The paper presents evidence that the audit fees are significantly influenced by audit firms alumni among the executive and non-executive directors. The findings suggest that auditing firm alumni who are appointed as finance directors, chief executives or chairmen tend to lower audit fees in the small segment of the audit market, whereas non-executive directors who have qualified as CPAs with the incumbent auditor have a propensity to lower the audit fees in the large segment of the audit market. The paper demonstrates that the association of accountancy firm alumni with their alma mater has a significant effect on the pricing of audit services.

The remainder of the paper is divided into five further sections. The next section presents a specific theoretical framework using the literature on auditor's engagement risk. The third section develops the hypotheses. The research design, measurement of variables

and the model employed are discussed in the fourth section. The empirical results, and the limitations and implications of these results for future research and for audit practice are set out in the remaining two sections respectively.

II. THEORY DEVELOPMENT

The audit engagement process is complex and decisions are made by both the prospective client and the proposing accounting firm. The selection of external auditors by companies has been extensively researched (Burton and Roberts 1967; Chow and Rice 1982; Eichenseher and Shields 1983; McConnell 1984; Simon and Francis 1988; among others), but to date there are only a few studies of the auditor's decision process in accepting a new client (Huss and Jacobs 1991; Francis and Reynolds 1998; Houston et al 1999; Johnstone 2000; Gendron, 2001).

Professional standards suggest that audit firms should establish procedures for making the client acceptance/continuance decision. However, professional standards do not provide any specific guidance about how to actually make the decision (Shibano 1990; Houston et al 1999), although the client acceptance decision is an increasingly important auditing task; Huss and Jacobs (1991, 20) specifically stated that "...the pre-engagement decision process is a - perhaps the most - critical step in the audit process".

On the other hand, audit partners' judgements may be affected by the fact that they are compensated based, in part, on the amount of revenue that is generated via new clients (Asare *et al.* 1994) as well as by the enormous competition between audit firms for new clients (Accountancy 1995). As a result, partners' judgements may be less conservative, that is that client-related risks and the auditor engagement risk may be ignored or minimised in order for new clients to be recruited; or on the other hand, they may be more conservative due to audit firms' increased litigious operating environment. In any event an evaluation of the risks involved is a necessary consideration for auditors when they make auditing acceptance decisions (Simunic and Stein 1990; Jones and Raghunandan 1998).

Johnstone (2000) has examined the client acceptance decision. She developed a risk-based model where the client-related risks are evaluated and then the audit firm's risk of loss on the engagement is assessed. In other words, she found that auditors' evaluations of the (prospective) client's inherent and control risks affected their evaluations of the client's future financial prospects. These significant evaluations, in turn, affected auditors'

evaluations of their firms' risk of loss on the engagement via lack of engagement profitability or future litigation. Johnstone concluded that auditors do use their evaluations of client-related risks and their own firms' risk of loss on the engagement to screen out undesirable clients. Huss and Jacobs (1991), Francis and Reynolds (1998), Jones and Raghunandan (1998), Pratt and Stice (1994), Hill *et al.* (1994) and Clarkson and Simunic (1994) have all reached similar conclusions, that is, pre-engagement risk assessments are regarded as an important determinant in the engagement outcome.

In order for the auditor to form an overall evaluation of the riskiness of the client, three relevant and interrelated risks must be evaluated, according to Johnstone. These risks involve the client's business risk (i.e., the client's financial condition and industry membership), the audit risk (i.e., inherent risk, control risk), and the auditor's business risk (i.e., the likelihood that the auditor will suffer a loss from the engagement). For example, Jones and Raghunandan (1998) showed that there is a significant reduction in the likelihood that Big 6 firms would audit clients who are in financial distress or in high-tech industries, simply because these clients are perceived as having high litigation risks. In contrast, Francis and Reynolds (1998) provided evidence that there is an increase in the riskiness of the Big 6 clientele in their study of publicly held companies undertaken for the period 1976 through 1996.

Although Pratt and Stice (1994), Walo (1995) and Houston et al (1999) have reported that auditors respond to business risk by charging higher fees and/or adjusting their pre-acceptance data collection strategies, in a more recent study Johnstone (2000) concluded that audit partners do not use risk adaptation strategies (e.g., adjusting the audit fee, etc.) to mediate the effects of the client's business risk, audit risk, and auditor's business risk evaluations on the client acceptance decision. This is consistent with anecdotal evidence that auditors have difficulty shifting auditor's business risk to clients via certain risk adaptive behaviours (Arthur Andersen *et al.* 1992; Morgan and Stocken 1998). This finding implies that risk adaptation strategies are not appropriate for making an otherwise "unacceptable" client (due to extremely high client-related risks evaluations and consequent, audit firm's risk of loss on the engagement) more acceptable. As a result of auditors not using more active risk adaptation strategies, it would appear that the only other possible way of accepting an engagement, *ceteris paribus*, is by reducing the risks associated with the client acceptance decision.

Audit firms operate commercial services in the professional appointments, executive search and recruitment market. Anderson et al (1997) mention that more than 50% of the members of the Institute of Chartered Accountants in England and Wales (ICAEW) are in various business positions, and Steele and Basioudis (2000) report that one in four audit firm alumni, who are directors of UK listed companies, have their alma mater as auditor. Indeed there is a well trodden path of CPAs from the practising offices into industrial and commercial employment with their former audit clients. This study suggests that by enthusiastically working towards outplacing their alumni onto the fast track for promotion and ultimately into the boardrooms of existing (and prospective) clients, audit firms seek to meliorate the client-related risks and consequently the firm's risk on loss on the engagement¹. They succeed in doing so because the appointment of their alumni into fast-track and seniority networks in major companies provides auditors with valuable information on management², and even more the presence of alumni on boards is likely to be regarded by auditors as a positive sign that the company is willing to set up strong and more reliable financial reporting systems which in turn lead to the expectation that auditors assess lower inherent (and control) risk(s).

As noted earlier, auditors do evaluate the client-related risks before they assess the audit firm's level of risk of loss on the engagement. Not only that, but, as I have suggested, auditors seek actually to reduce the risks associated with the client inquiry audit process. This is in accordance with prior research in auditing where auditors appear to be sensitive to the objectivity of the source, to the expertise (competence) of the source and to the communication style of the client. Joyce and Biddle (1981), Hirst (1994), Reimers and Fennema (1999), Goodwin (1999) and Beaulieu (2001) all demonstrate that auditors assess information from the more objective source as more diagnostic than information received from a less objective source. In addition, previous studies have shown that auditors receiving an estimate or explanation from a source of high expertise (competence) are more confident in their own re-estimate than auditors receiving an estimate or explanation from a source of low expertise (competence) (Bamber 1983; Rebele *et al.* 1988; Hirst 1994; Anderson *et al.* 1994). Finally, Comunale *et al.* (1999) explore auditors' judgements in the presence of differing levels of client presentation skills and their findings suggest that the communication style of the client influences auditors' judgements and assessments of client credibility. In other words, therefore, the outplacement of audit firms' alumni on the clients' (prospective or not) boardrooms enhances the perceived objectivity, expertise, competence

and the linguistic delivery style of clients' management which in turn leads the auditors to assess lower inherent risk.

In sum, audit firms facilitate outplacement and exploit effectively this service in order to assist them in producing pre-engagement analyses, making the client acceptance/continuance decision and “screening” out prospective undesirable clients. As a result, therefore, auditors are expected to assess lower levels of inherent risk for companies with CPAs on their boards which, in turn, results in lower audit effort and auditors charging lower audit fees. This last argument is also consistent with previous studies on the role of outside directors on boards of directors which have shown that the presence of independent non-executive directors on corporate boards is expected to be associated with higher monitoring and lower agency costs which is likely to affect assessments of inherent risk and lower the audit fees (Byrd and Hickman 1992; Forker 1992; Brickley *et al.* 1994; Chen and Jaggi 1997; Gul *et al.* 1998).

III. HYPOTHESES

Pursuing the above line of reasoning the following two hypotheses will be tested:

H1: UK companies pay lower audit fees when ex-employees (alumni) of the incumbent auditor sit in their Boards of Directors as executive directors

Hypothesis 1 assumes that the pricing of audit services is related to the existence of audit firm alumni on the board of directors and more specifically, that any “alumni effect” has negative pricing consequences. In other words, do directors-CPA alumni really encourage discounting and lower audit fees? Rejection of this hypothesis, on the other hand, may imply that it makes no difference on audit fees when any executive director is an ex-employee (alumni) of the incumbent auditor.

The above hypothesis is tested by incorporating a categorical variable which is assigned the value of one when there is an alumni of the incumbent auditor on the boards of directors, and zero otherwise³.

As noted in the previous section, the mere presence of non-executive directors on corporate boards is found to have a negative impact on audit fees (Byrd and Hickman 1992; Forker 1992; Brickley *et al.* 1994; Chen and Jaggi 1997; Gul *et al.* 1998). In this paper, I

extend the above argument by testing whether the existence in the boardrooms of non-executive directors causes indeed a reduction on the level of audit fees when the non-executive directors are CPAs and simultaneously ex-employees (alumni) of the incumbent auditor. This leads to the second hypothesis:

H2: UK companies pay lower audit fees when ex-employees (alumni) of the incumbent auditor sit in their Boards of Directors as non-executive directors

The above hypothesis is tested by incorporating a categorical variable which is assigned the value of one when the non-executive directors are CPAs qualified with the incumbent auditor, and zero otherwise⁴.

A further hypothesis:

According to prior literature (for example, Hussey and Jack 1994; Beattie and Fearnley 1988), the chairmen, chief executives or finance directors are principally responsible for the appointment of auditors. As shown by the motivation and theory development section of this paper, however, the presence of audit firm alumni into clients' boards of directors is expected to lead to lower audit fees charged by auditors. Accordingly, therefore, the following proposition is offered: the relationship between audit fees and the above group of executive directors (that is, chairmen, chief executives and finance directors) who are CPAs and have qualified with the incumbent auditor should be negative and be translated into lower audit fees. Thus the final hypothesis is:

H3: UK companies pay lower audit fees when ex-employees (alumni) of the incumbent auditor sit in their Boards of Directors as chairmen, chief executives or finance directors

The above hypothesis is tested by incorporating a categorical variable which is assigned the value of one when chairmen, chief executives or finance directors are CPAs and alumni of the incumbent auditor, and zero otherwise⁵.

IV. RESEARCH DESIGN

Alumni Network

The population examined in this study consists of all publicly held corporations in the UK that have directors-CPAs on their boards and their auditors. The investigation draws on publicly available information. The names and qualifications of directors for the UK quoted companies were supplied by PricewaterhouseCoopers. The Directory of Members for the Institute of Chartered Accountants in England and Wales (ICAEW) provides, in addition to a correspondence address for each member, the year of qualification. The examination pass lists for the year of qualification are published in the Accountant Magazine for the years prior to 1956, and directly from the ICAEW since 1956. They list, against the name of each successful candidate, the audit firm and the town in which the candidates received their professional training. By this means the network links between Directors and Accounting Firms were reconstructed. Prior to 1983, the examination pass lists recorded, instead of the name of the audit firm, the name of the partner to whom the student/trainee was articulated. The ICAEW Directory of Members needed to be consulted to give the audit firm for each partner. From these sources it was possible to research the professional background of the accountancy directors who qualified prior to 1983. ONE-SOURCE and FAME databases provided financial data for the 1996 year. Consistent with prior literature, a classical regression model is used in this study to test the hypotheses discussed above. Most of the variables hypothesised to affect audit fees in prior studies will be incorporated in this study's model.

The Alumni Variables

As mentioned, a modified audit fee regression model developed initially by Simunic (1980) and refined later by others (for example, Francis and Simon 1987; Francis and Stokes 1986) is used to test the hypotheses. These models generally include variables to capture a variety of auditor and auditee characteristics. These characteristics are most often related to auditee risk and complexity, auditee size and auditor size, and have been found in prior studies to be significant explanators of the level of audit fees.

To test whether a non-price factor, such as the "alumni effect" which is proposed by this study, is reflected on audit fees, a variable ALUMNI is added as the experimental (categorical) variable. This categorical variable takes a value of one if the auditor of the public company is the same firm with the one that the director-CPA has qualified with, and zero otherwise. This categorical variable is meant to capture any "alumni effect" related to the costs of delivering an audit. Does an alumni director lead to lower audit fees or prevent

any discounting? Also, two interactive variables have been used to test the hypotheses 2 and 3. The variable ALMNEXD - coded 1 if the non-executive director is a CPA qualified with the incumbent auditor, otherwise 0 - tests for the audit fee shift due to the existence in the UK boardrooms of non-executive directors who are also CPAs and qualified with the company's audit firm. Similarly, the variable ALMNFD - coded 1 if finance director, chairman and/or chief executive is a CPA qualified with the incumbent auditor, otherwise 0 - tests for audit fee differences due to the existence in the UK boardrooms of finance directors, chairmen and/or chief executives who are also CPAs qualified with the incumbent auditor.

Sample Partition

Consistent with prior studies in auditing literature, the sample of 1816 total observations is partitioned into two groups, one group represents the small auditor clients (1396 observations) and the other the large auditor clients (420 observations). However, the size cut-off determining "small" and "large" auditees has varied. For example, Simunic (1980) and Francis and Simon (1987) defined small auditees as companies with *sales* less than USA\$125 million. Palmrose (1986) defined small clients as companies with *total assets* less than USA\$150 million. These bounds are somewhat arbitrary and based on the assumption that the small auditee segment of the market is competitive while the large auditee segment is not competitive due to the high concentration of the Big 6 firms auditing large clients. The sample partition represents a built-in design feature for making inferences about observed differences in the pricing of the audit services when examined across both client segments. Furthermore, partitioning the sample in this study allows to test whether audit price prevailed throughout the UK market for the audits of publicly held companies, irrespective of the share of a market segment which is served by the Big 6 firms and of the existence of audit firm alumni in top client management positions. The small auditee market segment of the present study is defined as auditees with sales less than UK£251 million⁶.

Audit Fee Model

The refined OLS regression model to be estimated for testing the hypothesis 1 is:

$$\ln AFEE = b_1 + b_2 AUDQN + b_3 BIG6 + b_4 BUSY + b_5 GRTLONDN + b_6 \ln CR + b_6 \ln DE + b_7 \ln DEBTR + b_8 \ln NAFEE + b_9 \ln SALES + b_{10} LTLBTA + b_{11} SUBS^{0.5} + b_{12} ALUMNI + \text{Error}$$

whereas the refined OLS regression model to be estimated for testing the hypotheses 2 and 3 is:

$$\ln AFEE = b_1 + b_2 AUDQN + b_3 BIG6 + b_4 BUSY + b_5 GRTLONDN + b_6 \ln CR + b_6 \ln DE + b_7 \ln DEBTR + b_8 \ln NAFEE + b_9 \ln SALES + b_{10} LTLBTA + b_{11} SUBS^{0.5} + b_{12} ALMNEXD + b_{13} ALMNFD + \text{Error}$$

where:

Dependent Variable

lnAFEE = natural log of audit fees as disclosed in annual reports

Explanatory (Control) Variables

AUDQN = audit qualification, coded 1 if auditee received a “unqualified report”, otherwise 0
BIG6 = coded 1 if the auditor is a “Big 6” firm, otherwise 0
BUSY = coded 1 if auditee’s accounting year-end is Nov/Dec or Mar/April, otherwise 0
GRTLONDN = geographical location, coded 1 if auditee’s address is in London region, otherwise 0
lnCR = natural log of auditee’s current ratio
lnDE = natural log of auditee’s debt to equity ratio
lnDEBTR = natural log of auditee’s total year-end debtors to total assets
lnNAFEE = natural log of auditee’s fees paid for non-audit services
lnSALES = natural log of auditee’s sales
LTLBTA = auditee’s ratio of long-term liabilities to total assets
SUBS^{0.5} = square root of auditee’s number of consolidated subsidiaries

Experimental (Test) Variables

ALUMNI = Coded 1 if there is an alumni of the incumbent auditor on the board of directors, otherwise 0
ALMNEXD = Coded 1 if the non-executive director is a CPA qualified with the incumbent auditor, otherwise 0
ALMNFD = Coded 1 if finance director, chairman and/or chief executive is a CPA qualified with the incumbent auditor, otherwise 0

The regression model applied for testing the hypotheses 2 and 3 above does not include the ALUMNI variable. The reason behind this exclusion is that the ALMNEXD and ALMNFD variables are nested in the ALUMNI variable and, therefore, in that way, the regression model is adjusted accordingly in the analysis⁷.

Given the difficulties involved in controlling for client size differences in the literature (see, for example, Pong and Whittington 1994), the above models were re-

estimated firstly, by using log-transformed total assets (instead of *lnSALES*) as an appropriate client size proxy, secondly, by deflating all continuous variables by sales, thirdly, by deflating all continuous variables by total assets, fourthly, by using both log-transformed sales and total assets together, and finally, by using a quadratic specification based on sales. Overall, the regression results suggest that the major findings are robust to alternative client size proxies and specifications⁸.

V. RESULTS

Descriptive statistics are reported on Table 1 for the variables in the OLS fee model. Table 2 provides the description and predicted sign of the variables.

[Insert Tables 1 and 2 here]

Tables 3 through 6 report the OLS regression results for hypotheses 1 through 3 for the large and small companies segments.

[Insert Tables 3 through 6 here]

Multivariate Results

The models are highly significant with an adjusted R^2 of 75 percent in the large clients sub-sample and 69 percent in the small clients segment. The regression assumptions of normally distributed residuals and homoscedasticity were not violated. The VIF and tolerance values are in acceptable levels indicating little collinearity among the variables. No VIF value exceeds 10.0 and the tolerance values are quite high (Hair *et al.* 1998). Influential observations or outliers were assessed to identify any single or small group of observations being significantly influential and to assess their potential impact on the regression results. Several diagnostic procedures were employed, as described by Hair *et al.* (1998). Across all measures, seven potentially influential observations were identified, but both the explanatory power of the models and significance of the regression coefficients change only slightly with the elimination of the identified observations. A good linear fit was achieved by the regression models.

Of the significant control variables, most of them are in the expected direction in both segments of the UK audit market. The predicted signs were achieved for six of the seven significant control variables in the sample of large auditees and eight of the ten significant control variables in the sample of small auditees (although not exactly the same variables are significant in the two sub-samples). For the large companies segment, all variables controlling for size and complexity of auditee operations (i.e., $\ln SALES$, $\ln DEBTR$ and $SUBS^{0.5}$) are positive and highly significant. Two of the four variables controlling for auditee risk ($\ln CR$ and $LTLBTA$) are highly significant. Only one variable ($GRTLONDON$) measuring audit production costs is significant indicating that London-based companies pay higher audit fees. Finally, there is a significant positive relationship between audit fees and fees paid to auditors for non-audit services ($\ln NAFEE$). No evidence of a general Big 6 audit fee premium in the large companies segment is found. For the small companies segment, all control variables (except auditor opinion variable) are significant. There appears to be reliable evidence of a Big 6 premium (of around 18.5%; Berndt 1991, 164).

Test of Hypothesis 1

The test variable $ALUMNI$ is not significant in the two auditee sub-samples. Nevertheless, it has a negative sign in both sub-samples indicating that both the large and small clients receive an audit fee discount when they have an alumnus of the incumbent auditor on their boards.

Test of Hypothesis 2

The OLS estimates in Table 4 (i.e. the large client partition) and Table 6 (i.e. the small client partition) support partially the theory and the hypothesis 2, that is the presence of non-executive directors, who simultaneously are CPAs qualified with the incumbent auditor, is expected to be associated with lower audit fees. In other words, for the large client segment (in Table 4), the $ALMNEXD$ coefficient is significant (at 2.8% level) and negative, indicating a fee discount of around 19.9 percent. In contrast, for the small client sub-sample (in Table 6), the hypothesis 2 is rejected, as the $ALMNEXD$ variable is not equally significant.

Test of Hypothesis 3

The interaction test variable ALMNFD is marginally significant (at 5.8% level) in the large client partition of the UK audit market. However, the coefficient is positive, contrary to the expectations, indicating that the large UK listed companies are charged higher audit prices (an approximate audit fee premium of 32.3 percent) when their finance directors, chief executives or chairmen have qualified with the incumbent auditor. As a result, hypothesis 3 is rejected for the large client segment of the UK audit market.

For the sample of small auditees, there appears to be some evidence that hypothesis 3 can be accepted. The ALMNFD coefficient is negative but marginal significant (at 7.9% level) indicating an audit fee difference in this sub-sample. In particular, it means that the appointment of auditors' alumni as finance directors, chief executives or chairmen in the boardrooms of auditors small clients leads to lower audit fees charged (an audit fee discount of 13.9 percent), as expected. The Big 6 premium detected in the small client segment seems to almost offset alumni discounting.

VI. DISCUSSION AND CONCLUSIONS

Over the last two decades there have been a number of attempts at modelling external audit fees. These models have provided explanations for the level and variability of audit fees. Many of the prior studies have as their primary focus the modelling of audit fees and the establishment of determinants which cause the variability in audit fees. Generally, the results are consistent with the audit fee being a function of client factors, such as size and complexity, client risk to fail, and audit firm factors such as size, tenure, specialisation, provision of non-audit services. These factors are related to the audit fees through their effects on the costs of delivering the audit. This literature is widely seen as rigorous. However, the relationship between audit fee and non-price factors such as the one this study proposes, i.e., the relationship between audit fee and audit firm alumni has not been examined before in the accounting literature. The main purpose of this study was to investigate whether the links between audit firms and their former employees translate into price effects.

In this study, consistent with prior audit fee studies, a regression model of the audit fee function was utilised to determine the effects of the association of audit firm alumni with their alma mater on audit fees in the UK audit market. A set of control variables was used to control for other factors affecting audit fees. Three alumni variables were then

included in the model as the test (experimental) variables. Three separate categorical variables were used to test for the hypotheses developed. A good linear fit was achieved with the models and many, but not all, of the test variables were significant. The regression model results for both segments of the UK audit market are as hypothesised (for most variables). The sign of most (four out of six) of test coefficients were negative (but not significant) indicating lower audit fees charged by the audit firms. Three out of six test variables were significant and only two of them exhibited the predicted direction (i.e., negative).

These findings are partially consistent with the theoretical model developed. Using an analysis drawing on auditor's engagement risk, it was shown in the theoretical section of this paper that auditors evaluate the client-related risks and this in turn affects the level of audit fees charged by audit firms. By outplacing their alumni into the boardrooms of existing (and prospective) clients, accounting firms reduce the client-related risks, and as a result the firm's risk on loss on the engagement. The presence of audit firm alumni, therefore, into client management positions leads to an expectation that the auditors assess lower levels of inherent and control risks which, in turn, results in lower audit effort and auditors charging lower audit fees. On the demand side, audit clients always find welcome any reductions in the amount of the audit fees charged, no matter whether this discount comes from the incumbent or a new incoming auditor. Nevertheless, one test variable (the ALMNFD variable) appears to have an opposite from the expected effect in the large client segment of the market. Instead of lowering the audit fees, the finance director, chief executive or chairman seems to agree to pay a premium to their alma mater. This is an unexpected result, and no explanation is offered based on economic arguments and theories⁹.

In sum, the findings of this study are somewhat mixed. Although the theory predicts that there should be a negative effect on the audit fees when the test variables were implemented in the model, and this is the case for some of the test variables, however, one test variable has the opposite effect (i.e., a positive relationship between audit fees and chairmen, chief executives and finance directors is detected). Besides not all the rest test variables have a negative significant relationship with audit fees, as predicted. The reasons behind the above somewhat mixed results can be summarised as follows: 1) a number of CPAs-directors have trained and qualified with small firms of auditors, moving for post-qualifying experience to larger audit firms. The research design of the present study has

only identified the initial training firm, and consequently under-estimates the association with larger audit firms. This research design under-estimates any “alumni effect”; 2) The present study has not measured the number of years that CPAs-directors have worked for the audit firm before leaving public practice for a business career. Tenure is hypothesised to affect alumni perceptions about the employer (Ferris 1981; Iyer *et al* 1997); 3) The sample of the study comprises of all executive and non-executive directors, who run the companies listed in the London Stock Exchange and are simultaneously qualified CPAs. Some directors may have qualified as CPAs long time ago (indeed some directors in the sample have received their CPA qualification 60 years or so ago), and therefore, it may be argued that any “alumni effect” might have deteriorated since then. Again, the research design of the present study under-estimates any “alumni effect”.

Clearly the non-price aspect of competition, that is the “alumni effect”, has proved to have a more important role in accountancy practice development than it was thought before. Audit firm clients have a significant insight connection to their auditors, with one of their directors an ex-employee of the incumbent auditor. The research suggests the returns from training CPAs need to be re-considered by the audit firms, and to explicitly implement an alumni policy. Small audit firms are at a competitive disadvantage because of the lack of an influential body of alumni. These firms need to re-evaluate their human resource policies, in view of the evidence of networking in marketing¹⁰. Further, the accountancy profession may find it necessary to assess the implications of this study. Calls for more independent regulation of the audit profession may be supported by the evidence provided in this study, and accounting and auditing may be demarcated. Auditors who cease to be auditors (i.e., become an audit firm alumni) may be banned from being employed by an ex-audit client, as for example it happens in France, or as it has been recently suggested by an Australian government-commissioned report (Accountancy, 2001).

This study has investigated the effects of the association of audit firm alumni with their alma mater on audit fees in the UK audit market. In other words, it has introduced in the auditing literature a non-price aspect of competition, that is, the “alumni effect”. Future research is needed to assess whether other non-price aspects of competition play an important role in determining the level of audit fees, and also to assess what is the nature of the alumni effect on important but under-researched issues such as how audit firms are

chosen by their clients, how auditors are appointed and re-appointed and perhaps more significantly how they retain the audit. In addition, this study has not included auditor switches. Of interest would also be for further research to be able to identify whether the CPA-director has helped the alma mater to receive an additional client even if there may be no change in audit fees. In other words, is change of director associated with change of auditor (but no change in the audit fees from a client perspective)? Future research could also seek details of any post-qualifying affiliations of CPA-directors.

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Table 1: Descriptive statistics

Descriptive Statistics		1816 Total Observations (£'000)	1396 Observations on Auditees with Sales less than £251MM (£'000)	420 Observations on Auditees with Sales greater than £251MM (£'000)
AFEE	Minimum	0	0	44
	Maximum	8,000	780	8,000
	Mean	246	73	936
	Std. Deviation	645	81	1,205
AUDQN	Percentage	97.31%	97.24%	98.33%
BIG6	Percentage	74.66%	69.49%	92.37%
BUSY	Percentage	67.19%	68.23%	80.83%
GRTLONDN	Percentage	51.56%	48.80%	60.83%
CR	Minimum	0	0.02	0.19
	Maximum	95.44	95.44	4.33
	Mean	1.97	2.11	1.37
	Std. Deviation	4.52	5.04	0.65
DE	Minimum	-33.79	-33.79	-6.1
	Maximum	38.65	38.65	35.39
	Mean	0.42	0.36	0.67
	Std. Deviation	2.49	2.38	2.92
DEBTR	Minimum	0	0	0
	Maximum	0.98	0.98	0.97
	Mean	0.22	0.22	0.21
	Std. Deviation	0.19	0.19	0.17
NAFEE	Minimum	1	1	4
	Maximum	11,500	2,173	11,500
	Mean	211	74	716
	Std. Deviation	667	137	1,304
SALES	Minimum	1	1	251,285
	Maximum	36,106,000	250,030	36,106,000
	Mean	456,019	53,897	2,064,507
	Std. Deviation	1,765,431	59,076	3,517,715
LTLBTA	Minimum	0	0	0
	Maximum	4.31	4.31	2.16
	Mean	0.17	0.15	0.23
	Std. Deviation	0.23	0.23	0.22
SUBS	Minimum	0	0	0
	Maximum	144	45	144
	Mean	11.1	7.3	24.79
	Std. Deviation	14.59	6.95	23.68
ALUMNI	Percentage	14.92%	14.12%	17.65%
ALMNEXD	Percentage	12.96%	11.92%	16.59%
ALMNFD	Percentage	6.34%	6.27%	7.11%

Table 2: Description of the variables

	Predicted Sign	Description of the variables
AUDQN	+	Audit qualification, coded 1 if auditee received a “unqualified report”, otherwise 0
BIG6	+ (small clients) +/- (large clients)	Coded 1 if the auditor is a “Big 6” firm, otherwise 0
BUSY	+	Coded 1 if auditee’s accounting year-end is Nov/Dec or Mar/Apr, otherwise 0
GRTLONDN	+	Geographical location, coded 1 if auditee’s address is in London region, otherwise 0
LNCR	-	natural log of auditee’s current ratio
LNDE	+	natural log of auditee’s debt to equity ratio
LNDEBTR	+	natural log of auditee’s total year-end debtors to total assets
LNNAFEE	+	natural log of auditee’s fees paid for non-audit services
LNSALES	+	natural log of auditee’s sales
LTLBTA	+	auditee’s ratio of long-term liabilities to total assets
SQRTSUBS	+	square root of auditee’s number of consolidated subsidiaries
ALUMNI	-	Coded 1 if there is an alumni of the incumbent auditor on the board of directors, otherwise 0
ALMNEXD	-	Coded 1 if the non-executive director is an alumni of the incumbent auditor, otherwise 0
ALMNFD	-	Coded 1 if finance director, chairman or chief executive is an alumni of the incumbent auditor, otherwise 0

Table 3: Summary of regression estimates for large clients sub-sample (n = 420)
 Dependent variable = *lnAFEE*, *ALMNEXD* and *ALMNFD* variables are excluded from the model

	Predicted Sign	B Coefficient	t value	Sig.	Collinearity Tolerance	Statistics VIF
(Constant)		-1.9612	-3.6605	0.0003		
AUDQN	+	0.0630	0.2046	0.8380	0.9574	1.0445
BIG6	+/-	0.0130	0.1169	0.9070	0.9459	1.0572
BUSY	+	0.0017	0.0239	0.9809	0.9335	1.0712
GRTLONDN	+	0.2459	4.0747	0.0001	0.8740	1.1442
LNCR	-	0.3102	4.4524	0.0000	0.6983	1.4320
LNDE	+	-0.0276	-1.2880	0.1987	0.5934	1.6853
LNDEBTR	+	0.1586	5.1271	0.0000	0.5709	1.7517
LNNAFEE	+	0.3183	9.2883	0.0000	0.4692	2.1314
LNSALES	+	0.4180	10.6239	0.0000	0.4521	2.2117
LTLBTA	+	1.0899	4.5692	0.0000	0.4528	2.2087
SQRTSUBS	+	0.0874	5.7806	0.0000	0.7742	1.2916
ALUMNI	-	-0.0709	-0.9087	0.3642	0.9585	1.0433
R	R Square	Adjusted R ²	F value			
0.8746	0.7649	0.7564	90.572 ⁺			

⁺ indicates the F-value is significant at the 0.01% level

where:

Dependent Variable

lnAFEE = natural log of audit fees as disclosed in annual reports

Explanatory (Control) Variables

AUDQN = audit qualification, coded 1 if auditee received a “unqualified report”, otherwise 0

BIG6 = coded 1 if the auditor is a “Big 6” firm, otherwise 0

BUSY = coded 1 if auditee’s accounting year-end is Nov/Dec or Mar/April, otherwise 0

GRTLONDN = geographical location, coded 1 if auditee’s address is in London region, otherwise 0

lnCR = natural log of auditee’s current ratio

lnDE = natural log of auditee’s debt to equity ratio

lnDEBTR = natural log of auditee’s total year-end debtors to total assets

lnNAFEE = natural log of non-audit fees as disclosed in annual reports

lnSALES = natural log of auditee’s sales

LTLBTA = auditee’s ratio of long-term liabilities to total assets

SUBS^{0.5} = square root of auditee’s number of consolidated subsidiaries

Experimental (Test) Variable

ALUMNI = Coded 1 if there is an alumni of the incumbent auditor on the board of directors, otherwise 0

Table 4: Summary of regression estimates for large clients sub-sample (n = 420)
Dependent variable = *lnAFEE*, ALUMNI variable is excluded from the model

	Predicted Sign	B Coefficient	t value	Sig.	Collinearity Tolerance	Statistics VIF
(Constant)		-1.9976	-3.7461	0.0002		
AUDQN	+	0.0589	0.1923	0.8476	0.9575	1.0444
BIG6	+/-	0.0270	0.2439	0.8075	0.9410	1.0627
BUSY	+	-0.0093	-0.1318	0.8952	0.9284	1.0772
GRTLONDN	+	0.2569	4.2570	0.0000	0.8651	1.1559
LNCR	-	0.3122	4.5034	0.0000	0.6976	1.4335
LNDE	+	-0.0258	-1.2094	0.2274	0.5934	1.6852
LNDEBTR	+	0.1576	5.1218	0.0000	0.5707	1.7521
LNNAFEE	+	0.3207	9.3739	0.0000	0.4657	2.1473
LNSALES	+	0.4198	10.7173	0.0000	0.4513	2.2158
LTLBTA	+	1.0893	4.5911	0.0000	0.4528	2.2084
SQRTSUBS	+	0.0862	5.7290	0.0000	0.7742	1.2916
ALMNEXD	-	-0.2218	-2.2019	0.0284	0.6057	1.6510
ALMNFD	-	0.2848	1.8976	0.0586	0.6018	1.6615
R	R Square	Adjusted R ²	F value			
0.8763	0.7680	0.7590	84.831 ⁺			

⁺ indicates the F-value is significant at the 0.01% level

where:

Dependent Variable

lnAFEE = natural log of audit fees as disclosed in annual reports

Explanatory (Control) Variables

AUDQN = audit qualification, coded 1 if auditee received a “unqualified report”, otherwise 0
 BIG6 = coded 1 if the auditor is a “Big 6” firm, otherwise 0
 BUSY = coded 1 if auditee’s accounting year-end is Nov/Dec or Mar/April, otherwise 0
 GRTLONDN = geographical location, coded 1 if auditee’s address is in London region, otherwise 0
lnCR = natural log of auditee’s current ratio
lnDE = natural log of auditee’s debt to equity ratio
lnDEBTR = natural log of auditee’s total year-end debtors to total assets
lnNAFEE = natural log of non-audit fees as disclosed in annual reports
lnSALES = natural log of auditee’s sales
 LTLBTA = auditee’s ratio of long-term liabilities to total assets
 SUBS^{0.5} = square root of auditee’s number of consolidated subsidiaries

Experimental (Test) Variables

ALMNEXD = Coded 1 if the non-executive director is CPA qualified with the incumbent auditor, otherwise 0
 ALMNFD = Coded 1 if finance director, chairman and/ or chief executive is a CPA qualified with the incumbent auditor, otherwise 0

Table 5: Summary of regression estimates for small clients sub-sample (n = 1396)
 Dependent variable = *lnAFEE*, *ALMNEXD* and *ALMNFD* variables are excluded from the model

	Predicted Sign	B Coefficient	t value	Sig.	Collinearity Tolerance	Statistics VIF
(Constant)		-1.0383	-5.8778	0.0000		
AUDQN	+	-0.1162	-1.0143	0.3107	0.9405	1.0632
BIG6	+	0.1704	4.5471	0.0000	0.8875	1.1268
BUSY	+	0.1054	3.1413	0.0017	0.9889	1.0112
GRTLONDN	+	0.2489	7.7293	0.0000	0.9416	1.0620
LNCR	-	0.0898	3.0493	0.0024	0.9239	1.0824
LNDE	+	-0.0524	-3.9349	0.0001	0.4330	2.3097
LNDEBTR	+	0.0826	6.1370	0.0000	0.6455	1.5492
LNNAFEE	+	0.1742	11.3686	0.0000	0.7229	1.3834
LNSALES	+	0.3753	23.7043	0.0000	0.6403	1.5618
LTLBTA	+	0.9136	4.9928	0.0000	0.3459	2.8910
SQRTSUBS	+	0.1198	8.8467	0.0000	0.8349	1.1977
ALUMNI	-	-0.0040	-0.0914	0.9272	0.9750	1.0256

R	R Square	Adjusted R ²	F value
0.8365	0.6998	0.6957	173.4360 ⁺

⁺ indicates the F-value is significant at the 0.01% level

where:

Dependent Variable

lnAFEE = natural log of audit fees as disclosed in annual reports

Explanatory (Control) Variables

AUDQN = audit qualification, coded 1 if auditee received a “unqualified report”, otherwise 0

BIG6 = coded 1 if the auditor is a “Big 6” firm, otherwise 0

BUSY = coded 1 if auditee’s accounting year-end is Nov/Dec or Mar/April, otherwise 0

GRTLONDN = geographical location, coded 1 if auditee’s address is in London region, otherwise 0

lnCR = natural log of auditee’s current ratio

lnDE = natural log of auditee’s debt to equity ratio

lnDEBTR = natural log of auditee’s total year-end debtors to total assets

lnNAFEE = natural log of non-audit fees as disclosed in annual reports

lnSALES = natural log of auditee’s sales

LTLBTA = auditee’s ratio of long-term liabilities to total assets

SUBS^{0.5} = square root of auditee’s number of consolidated subsidiaries

Experimental (Test) Variable

ALUMNI = Coded 1 if there is an alumni of the incumbent auditor on the board of directors, otherwise 0

Table 6: Summary of regression estimates for small clients sub-sample (n = 1396)
Dependent variable = *lnAFEE*, ALUMNI variable is excluded from the model

	Predicted Sign	B Coefficient	t value	Sig.	Collinearity Tolerance	Statistics VIF
(Constant)		-1.1077	-6.1399	0.0000		
AUDQN	+	-0.0656	-0.5610	0.5749	0.9473	1.0557
BIG6	+	0.1696	4.5370	0.0000	0.8839	1.1313
BUSY	+	0.1025	3.0501	0.0024	0.9813	1.0191
GRTLONDN	+	0.2451	7.6343	0.0000	0.9419	1.0617
LNCR	-	0.0889	3.0269	0.0025	0.9230	1.0834
LNDE	+	-0.0523	-3.9513	0.0001	0.4344	2.3020
LNDEBTR	+	0.0805	5.9877	0.0000	0.6451	1.5502
LNNAFEE	+	0.1764	11.5317	0.0000	0.7213	1.3864
LNSALES	+	0.3766	23.7632	0.0000	0.6444	1.5518
LTLBTA	+	0.8991	4.9277	0.0000	0.3456	2.8933
SQRTSUBS	+	0.1191	8.8333	0.0000	0.8351	1.1974
ALMNEXD	-	0.0807	1.2763	0.2022	0.5161	1.9377
ALMNFD	-	-0.1500	-1.7582	0.0791	0.5216	1.9171
R	R Square	Adjusted R ²	F value			
0.8382	0.7026	0.6983	162.1480 ⁺			

⁺ indicates the F-value is significant at the 0.01% level

where:

Dependent Variable

lnAFEE = natural log of audit fees as disclosed in annual reports

Explanatory (Control) Variables

AUDQN = audit qualification, coded 1 if auditee received a “unqualified report”, otherwise 0

BIG6 = coded 1 if the auditor is a “Big 6” firm, otherwise 0

BUSY = coded 1 if auditee’s accounting year-end is Nov/Dec or Mar/April, otherwise 0

GRTLONDN = geographical location, coded 1 if auditee’s address is in London region, otherwise 0

lnCR = natural log of auditee’s current ratio

lnDE = natural log of auditee’s debt to equity ratio

lnDEBTR = natural log of auditee’s total year-end debtors to total assets

lnNAFEE = natural log of non-audit fees as disclosed in annual reports

lnSALES = natural log of auditee’s sales

LTLBTA = auditee’s ratio of long-term liabilities to total assets

SUBS^{0.5} = square root of auditee’s number of consolidated subsidiaries

Experimental (Test) Variables

ALMNEXD = Coded 1 if the non-executive director is a CPA qualified with the incumbent auditor, otherwise 0

ALMNFD = Coded 1 if finance director, chairman and/ or chief executive is a CPA qualified with the incumbent auditor, otherwise 0

¹ The “alumni effect” phenomenon observed in this study is not regarded as simply the result of a natural progression from an accounting training base to an accounting-related job, as one reviewer argues. The position taken by this study is that audit firms do proactively and strategically “outplace” their alumni, and there is plenty of anecdotal evidence suggesting that such association between the auditor who has been outplaced and his/her former employer (i.e., audit firm) brings new business to the audit firms (see, for example, *Accountancy Age*, 2 May 1991, p. 1; *Accountancy*, December 1992, pp. 26-28; *Financial Times*, 11 November 1993, p.19; *The Times*, 29 June 2000). In addition, anecdotal evidence suggests that trainee intakes retain links long after qualification, and that firms actively promote such loyalties through annual reunion events (Grey, 1994; Iyer *et al.*, 1997; Anderson-Gough *et al.*, 1998; Bruce, 2000). For example, audit firms devote considerable resources to their alumni relations programmes in keeping track of their alumni, publishing alumni directories containing alumni’s names and other personal details, emphasising job placement services for departing employees and maintaining formal and informal contacts with their alumni, through alumni directories, annual social events, picnics and gatherings, newsletters and continuing education programmes (such as periodic technical seminars). In addition, many audit firm alumni belong to an alma mater club even years after they have left the firm, and they usually keep their certification and CPA, ICAEW or ICAS qualification.

² Kaplan and Reckers (1984) found that management integrity was not a significant factor in the auditor’s assessment of error likelihood. However, this research finding is regarded as unexpected, as the given firm’s audit pre-engagement decision processes would presumably preclude affiliation with a client of highly questionable integrity, in most cases at least.

³ More discussion about the alumni variable is offered in a later section

⁴ *ibid.*

⁵ *ibid.*

⁶ This is based on the Herfindahl Index (HI) where there is a low market penetration of the non-Big 6 audit firms when the size of companies exceeds about UK£251 million in sales. Following Moizer and Turley (1987, 1989) recommendation, I also used audit fee information as the most suitable base on which supplier concentration is measured in calculating HI.

⁷ I thank an anonymous reviewer for drawing this to my attention.

⁸ In the large auditees segment, when the models re-estimated by deflating the continuous variables by sales and total assets, the test variables became insignificant and a Big 6 premium was found instead. However, because of the common denominator, spurious correlation was evidenced among the independent variables. When the sales quadratic model applied, the ALUMNI variable became negatively significant (at 1% level) but the ALMNFD variable became insignificant and there was a collinearity problem between sales and sales squared. Similar results were obtained for the small auditees partition. The models reported in this study are selected due to good explanatory power they produce and having better diagnostic characteristics than the others.

⁹ However, based on the social identity theory and psychology of identification and organisational commitment, the process of socialisation received during the CPA apprenticeship and the impact of identification with the accounting firm may affect alumni’s propensity to favour the alma mater (Iyer *et al.* 1997).

¹⁰ However, Steele and Basioudis (2000) mention that small audit firms are benefited too. Small practices have normally one or two listed companies among their clients, and the finance director of those clients trained with the same small audit firm.