Extending the Model of the Demand for a Voluntary Audit in Small Companies in the UK

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Abstract

This paper is drawn from a study commissioned by the DTI, the purpose of which was to investigate the views of the directors of private limited companies that are likely to qualify as small if the higher EU thresholds are adopted in the UK. The paper focuses on the factors that have a significant influence on the directors' decision to have a voluntary audit if the company were exempt from the statutory requirement.

Following exploratory interviews, a postal questionnaire was sent to the principal directors of all independent private limited companies that had filed full accounts in 2002 and which fell within the EU maxima for a small company. At the time of the study, these were turnover £4.8m, balance sheet total £2.4m and employees 50. Usable replies were received from 790 companies, giving a response rate of 30%. Tests for non-response bias indicated that the sample was representative of the body of companies from which it was drawn in respect of turnover and balance sheet total, but that it did not represent the smallest companies in terms of number of employees.

The proposal to raise the audit exemption threshold to £4.8m was supported by 57% of the sample companies. However, 42% of companies with a maximum turnover of £1m (the current threshold) had chosen a voluntary audit in their 2002 accounts and 42% of companies with a maximum turnover of £4.8m predicted that they would have a voluntary audit if they became exempt. Logistic regression analysis reveals that the likelihood of the directors choosing a voluntary audit is higher if the company is larger in terms of turnover and they consider the audit provides a check on accounting records and systems, improves the quality of the financial information and has a positive effect on the company's credit rating score; in addition, if the company is not wholly family-owned, has shareholders without access to internal financial information and if the statutory accounts are normally given to the bank and other providers of finance.

These results suggest that if thresholds in the UK are raised to EU levels, policy-makers should be aware that the new category of small companies would contain two subgroups with differing needs. This is demonstrated by the significant proportion of directors whose audit decision indicates that the benefits outweigh the costs. This heterogeneity should also be taken into account by those who contribute to the development of differential financial reporting on the basis of size at the international level.

1. Background to the study

1.1 Introduction

This study is based on a survey commissioned by the DTI (Collis, 2003a) and supports the government's stance on evidence-based policymaking (Cabinet Office, 1999). The purpose of the research was to investigate the views of the directors of small private companies as part of the UK government's consultation on raising the audit exemption level. The study was designed to extend previous research (Collis and Jarvis, 2000, Collis, Jarvis and Skerratt, 2001b; Collis, 2003b) and focuses on companies that were likely to qualify as 'small' under UK law already, as well as those that were likely to be reclassified as such if the higher EU thresholds were adopted. This paper examines the factors that have a significant influence on the directors' decision regarding a voluntary audit if the company were exempt.

The question of the size of company that should be exempt from the statutory audit is an important aspect of a wider debate on the need for different sets of generally accepted accounting principles (GAAP) for large and small entities (the big GAAP/little GAAP debate). Although the appropriate threshold for audit exemption is controversial, the discussion has been dominated by anecdotal evidence from policy-makers and the accountancy profession. Since the directors are the main users of the statutory accounts (Page, 1984; Carsberg, Page, Sindall and Waring, 1985; Barker and Noonan, 1996) and recent research shows that they use the accounts for a range of internal and external purposes (Collis and Jarvis, 2000), their views are vital. Moreover, they must weigh up the costs and benefits of having the accounts audited, and bear the financial cost of the audit.

1.2 Role of the audit

An audit is 'an independent examination of, and the subsequent expression of opinion on, the financial statements of an organization' (Hussey, 1999, p. 33). The audit can be viewed as an integral part of corporate financial reporting, where the assurance it provides stems from the trust placed in the judgement of the auditor. The audit is designed to demonstrate 'the completeness, accuracy and validity of transactions which, when aggregated, make up the financial statements' (Power, 1997, p. 24).

The auditor must plan the audit to provide a reasonable expectation of detecting material misstatements (APC, 1990). Some contend that responsibility for the prevention of fraud rests with management, through internal systems of supervision and control (Pound and Courtis, 1980), but Woolf (1996) argues that there is some overlap, as material fraud is likely to affect the true and fair view verified by the auditor.

1.3 Development of differential audit requirements

In the UK, differential financial reporting for companies of different sizes developed in the early 1990s, when smaller companies were offered a regulatory framework with some simplifications and concessions from generally accepted accounting principles (GAAP). The regulatory framework for smaller reporting entities has become known as little GAAP.

In 1994 the EC Fourth Company Law Directive permitted national governments to dispense with the requirement for smaller entities to undergo an audit. This led to an amendment of section 249A of the Companies Act 1985 (SI 1994/1935) to exempt qualifying small companies with a turnover up to £90,000 and a balance sheet total up to £1.4m. It is important to note that this turnover threshold was lower than the level set in the Fourth Directive. Unless a full audit was required by at least 10% of shareholders, a company with a turnover of between £90,000 and £350,000 was able to dispense with the audit, but had to have an accountant's report. In 1997 the turnover threshold was raised to £350,000 (SI 1997/936), with the balance sheet total remaining at £1.4m. However, the company also had to qualify as 'small' for the purpose of filing abbreviated accounts.[1]

In 2000 the turnover threshold was increased to £1m (SI 2000/1430) and the government put forward a proposal to raise the small company[2] size thresholds, including audit exemption, to the EU levels shown in Table 1 (DTI, 2000).[3] Under sections 247 and 247A of the Companies Act 1985, apart from certain companies that are excluded for reasons of public interest, a company qualifies as small if it meets any two of three basic size tests shown under UK maxima in Table 1. Apart from a newly incorporated company, the conditions must have been satisfied in two of the last three years (similar conditions apply to small groups). Table 1 also shows the higher EU thresholds.

Table 1 Size criteria and thresholds for small entities

Criteria	**UK maxima at the time of the study**	**EU maxima at the time of the study**	**EU maxima from May 2003**
Turnover	£2.8m	£4.8m	£5.6m
Balance sheet total	£1.4m	£2.4m	£2.8m
Employees	50	50	50

1.4 Structure of the paper

The remainder of the paper is structured as follows. Section 2 reviews the empirical and anecdotal evidence on the issue of audit exemption, which provides the theoretical framework for the study. Section 3 describes the methodology, which paves the way for an examination of the results in Section 4. The final section draws conclusions and discusses the implications of the findings.

[1] The options set out in Section 246 of the Companies Act (as revised by SI 1997/220) allow small and medium-sized companies to prepare and file either full or abbreviated financial statements with the Registrar, but they must provide full financial statements for their shareholders. Abbreviated accounts must be accompanied by a special auditors' report, unless the company is exempt from the requirement for an audit by virtue of sections 249A(1) or (2) or 250 of the Companies Act 1985.

[2] Most of the requirements of company law also apply to limited liability partnerships, a new form of business vehicle permitted since April 2001.

[3] In most EU member states the threshold is higher than in the UK (typically, £2m-£4m), but there are also legal and regulatory differences, as well as variations in the population and size distribution of business entities. These factors make inter-country comparisons problematic.

2. Review of the literature

2.1 Introduction

Differentiation in the size of company that should be required to have an audit implies that at a certain size the benefits outweigh the costs. Thus, the rationale for audit exemption is to relieve the unnecessary cost burden that the government argues falls disproportionately on small companies (DTI, 1995; DTI, 1999). However, the proposal to raise the size thresholds to the EU maxima has resulted in controversy over who will gain from such a move.

From the regulators' perspective, and that of the accountancy profession, the lack of information on the exact nature of the costs and benefits has limited the debate on the appropriate level for audit exemption (Collis, Jarvis and Skerratt, 2001a). Discussions have been informed mainly by anecdotal evidence, together with a small number of research studies. Given the dynamic nature of the regulatory environment in which financial reporting takes place, the results of older studies often have little relevance. Moreover, much of the previous research has is based on too small a sample to permit generalisations to be made (for example, Page, 1984; Freedman and Goodwin, 1993; Pratten, 1998; Lin-Seouw, 2001).

Recent generalisable evidence on the net benefits of the audit comes from a study by Collis (2003b), which gave rise to publications by Collis and Jarvis (2000); Collis *et al.*, 2001a and 2001b, and forthcoming). The following literature review draws on this prior work.

2.2 Size factors

An examination of the evidence relating to take-up levels offers key information relating to size as a factor for influencing the balance between the costs and benefits of the small company audit. A study of 171 companies,[4] conducted in 1979 before the Companies Act 1981 introduced a three-tier size classification of companies, predicted that only 15% of companies would discontinue the audit, whilst 84% would continue to have their accounts audited (Page, 1984). However, the sample was not selected on the basis of any size criteria but across the range of active, independent companies. This, together with the passage of time before audit exemption was first introduced in 1994, makes comparison problematic.

Details of the actual number of companies that took advantage of exemption in the early years are not available, but the government has recently begun collecting statistics. These show that 14% of companies on the register in 2002/3 had filed full audited accounts, 9% had filed abbreviated accounts and 57% had filed full or abbreviated accounts that were audit exempt (DTI, 2003, Table F2, p. 58). The remainder had filed group accounts, interim/initial accounts or were dormant. This information is difficult to interpret, as the percentages relate to the total business stock, rather than those eligible for exemption.

[4] This study achieved a 41% response rate from 413 companies.

A MORI survey of 176 companies on behalf of the ACCA (1998) forecast that approximately 40% of companies with a turnover between £350,000 and £1.5m were likely to opt for audit exemption if the threshold were raised to £1.5m. Looking at companies with a turnover up to £4.2m, a survey of the directors of 385 private limited companies (Collis and Jarvis, 2000)[5] found that 29% would forgo the audit if they had a choice, whilst 63% would have a voluntary audit if the threshold were raised to £4.2m (the EU maximum at that time). Thus, the predictions of both studies suggest that the majority of smaller companies consider the benefits outweigh the costs.

The profession's views on the most appropriate level for audit exemption are diverse (see for example, Acher, 1999; Graham, 1999; Langard, 1999; Masters, 1999). Among those in favour of raising the turnover threshold, Mitchell (1999, p. 21) reported that '92% of accountants responding to a Small Practitioners Association survey supported exemption for all private, owner-managed, small limited companies'. The ICAEW described the news that the threshold could be raised to the EU maximum as 'a positive step to ease the burdens on business' (Accountancy, 2003, p. 9). On the other hand, others in the ICAEW argued that raising the audit threshold reduces the quality of the information put on public record (Jones, 2003). The ACCA supported maintaining the present limit: 'The inescapable fact is that the government's proposals advocate the removal of the audit but not the requirement for the directors to deliver true and fair annual financial statements. Since 90% of the work is done by accountants in the compliance function, it is foolish to take away the value-added aspect which comes with the audit' (Beckerlegge, 1999, p.21). In the wake of Enron, the chief executive of ACCA argues that raising the audit threshold will raise the risk of fraud (Rose, 2003).

2.3 Management factors

In addition to size and external agency relationships, the demand for the audit may be attributable to management factors. Management may want an independent check on internal controls to reduce the chance of material error. In small companies inherent risk (the likelihood of a material misstatement arising) and control risk (the likelihood of the accounting control detecting any material misstatement) may be high. Indeed, Collis *et al.* (2001b) found that directors who would have a voluntary audit if they became exempt are likely to hold the view that the audit increases the quality of the information in the accounts and acts as a check on internal books and records.

Although Carsberg *et al.* (1985) established that the main use of the statutory accounts is for management purposes (particularly confirmatory purposes) their study did not explore the specific role of the audit in this connection. The MORI survey (ACCA, 1998) found that 40% of small companies consider that information provided by the audit is useful to the business itself, which suggests that the directors have a general perception that the audit provides net benefits. Page (1984) suggests that the directors would choose to have a voluntary audit for the efficient running of the company. Responses from 10 companies in a questionnaire survey by Pratten (1998) suggest several other reasons:

- their accountant had advised it;
- it is a discipline/good practice;
- for continuity with the past;

[5] The study achieved a 17% response rate from 2,287 companies.

- for a profit-related pay scheme.

Collis *et al.* (2001b) found that directors who had a degree, professional/vocational qualification or who had studied/trained in business or management subjects were more likely to choose a voluntary audit. This suggests that educational profile may be a proxy for formal knowledge of the costs and benefits of the audit.

2.4 Agency factors

Agency theory (Jensen and Meckling, 1976) offers another factor that might influence the balance between the costs and benefits of the audit. The theory suggests that information asymmetry arises in companies where there is separation of ownership and control, and this leads to the demand for the accounts to be audited. The agency rationale is classically applied in large companies where there are external shareholders and the audited accounts play an agency role in the relationship between shareholder (the principal) and director (the agent). In small companies, a principal is anyone who is distant from the actions of management and is unable to verify them, such as external shareholders, lenders and creditors.

Previous research shows that the audited accounts of small firms are crucial to the banks for making lending decisions[6] (Berry, Citron and Jarvis, 1987; Berry, Crum and Waring, 1993; Berry, Faulkner, Hughes and Jarvis, 1993; Deakins and Hussain, 1994; ACCA, 1998). There is also evidence that this is one reason why the directors choose to have the accounts audited (Page, 1984; Lin-Seouw, 2001). Indeed, a telephone survey of 176 companies with a turnover of up to £1.5m found that 82% consider that the information provided within the statutory audit is useful to the bank (ACCA, 1998, Appendix, p. 3).

Information asymmetry may also be present amongst internal shareholders if they lack the necessary skills to interpret financial information (Power, 1997). Thus, demand for the audit from shareholders may not be dependent on size, since ‘even in the very smallest company disputes can arise between shareholders and the audited accounts can be an essential protection’ (Freedman and Goodwin, 1993, p. 128). Nevertheless, it can be argued that as most small companies are owner-managed and family-owned (Bolton, 1971; Poutziouris, Chittenden, and Michaelas, 1998; Collis and Jarvis, 2000), there is little value in having the accounts audited and this agency cost can be avoided if the company is eligible for exemption.

Simunic and Stein (1987) contend that agency costs increase in proportion to the size and complexity of the firm’s operations. Therefore, such costs are expected to be less significant in small firms where operations are less complex than in large firms. Keasey, Watson and Wynarczyk (1988) argue that the cost of the universal application of the requirement to have the accounts audited falls disproportionately on small companies, particularly if the accounts are of little use to external users. This seems logical, as the proportion of fixed costs to variable costs is likely to be greater in small firms compared to large firms (Collis *et al.*, 2001b).

[6] Banks are the main source of finance to small firms (Cosh and Hughes, 1998).

2.5 Purpose of the study

The study builds on previous work by the author, which suffers from two limitations. First, due to the nature of the sampling frame, it was not representative of companies with a turnover of less than £0.5m; and second, the regulatory environment has changed since it was conducted in 1999. The purpose of the research was to address these deficiencies by investigating the views of the directors of private limited companies that are likely to qualify as small under UK law, as well as those that are likely to be reclassified as such if the higher EU thresholds were adopted.

The paper addresses the following research question:

> What are the factors that have a significant influence on the demand for the audit among companies with a maximum turnover of £4.8m?[7]

This is divided into nine hypotheses, which are presented below in the alternate form. The first hypothesis is based on the importance of turnover in the size qualification criteria in the Companies Act 1985:

> H1 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases with size, as measured by turnover.

The next five hypotheses relate to management factors in connection with the directors' knowledge or beliefs about the costs and benefits of the audit:

> H2 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases with perceptions that the audit provides a check on accounting records and systems.
> H3 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases with perceptions that the audit improves the quality of the financial information.
> H4 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases with perceptions that the audit improves the credibility of the financial information.
> H5 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases with perceptions that the audit has a positive effect on the company's credit rating score.
> H6 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases if they have a degree, a professional/vocational qualification or have studied/trained in business or management subjects.

The last three hypotheses relate to agency factors:

> H7 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases if they are <u>not</u> wholly family owned.

[7] This was the EU maximum in March 2003, when the survey was conducted.

H8 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases if they have external shareholders without access to internal financial information.

H9 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases if they give a copy of their statutory accounts to the bank and other providers of finance.

These theoretical propositions will be tested using logistic regression, which is a technique for predicting an outcome (the dependent variable) from a number of predictor variables (the independent variables) using multiple regression. The general model for the analysis is:

Voluntary audit decision = f (size, perceptions of audit costs and benefits, agency costs)

3. Methodology

3.1 Research design

The study was designed as a postal questionnaire survey of the directors of unlisted, private limited companies across all industries and regions in the UK. In March 2003, a list of private limited companies that had filed full accounts for 2002 was drawn from FAME[8] across all industries and regions of Great Britain. As a proxy for qualifying as a small company under EU maxima in force at the time of the study, selection was made on the basis of the company meeting all three of the following criteria in their 2002 accounts:

- turnover not exceeding £4.8m;
- balance sheet total not exceeding £2.4m;
- up to 50 employees.

This resulted in a list of 3,202 companies that represented the population of companies of this size filing full accounts last year.[9] The schedule was then screened to remove dormant companies, subsidiaries, groups and holding companies in order to retain only active independent companies, where financial reporting decisions would not be influenced by group policies. Finally, companies that had not provided any named director were eliminated to improve the response rate.

The questionnaire (see Appendix) was developed and piloted by conducting three interviews with auditors with small company clients and five with directors of small companies. The questionnaire was then reviewed by a number of experienced researchers before being posted to a named director, together with an accompanying letter and prepaid envelope in April 2003. In order to increase the response rate, a reminder was sent in May enclosing another copy of the questionnaire and prepaid envelope, as suggested by Kervin (1992). A further group of companies was eliminated from the

[8] A database that contains up to 10 years' information on British companies registered at Companies House one month after the accounts are filed, including more than 2.3m private companies.

[9] Companies filing abbreviated accounts do not disclose all three figures and, therefore, were not represented in the sample.

initial list because information was received that they had ceased trading, moved away or because the owner was absent/unable to participate. This reduced the list to 2,633 companies. By the cut-off date of 28th May, 790 usable replies had been received, giving a response rate of 30%.

In addition to the survey data, some financial and demographic data was obtained from FAME. Answers to open questions in the questionnaire were categorised thematically and the frequencies recorded. The data was analysed statistically using SPSS.

3.3 Response rate

It has already been mentioned that the exact number of companies that qualify as small is not known, as there is no sampling frame that defines companies according to the Companies Act criteria. However, using the category 0 – 50 employees as a proxy, government statistics show that the population of small companies totals 830,990 (SBS, 2002). The size of the sample (790) is sufficient to represent the population, as it greatly exceeds the minimum acceptable sample size of 384 for a population of this size (Krejcie and Morgan, 1970, p. 608).

Tests for non-response bias found that non-respondents were likely to have been smaller in terms of number of employees. This indicates that the sample contained fewer companies with no employees or very few employees compared with the population. However, in terms of turnover and balance sheet total, the results showed that the sample was representative of the body of companies from which it was drawn.

3.4 The sample companies

The intention of the study was to capture the views of the directors and in 94% of cases the questionnaire was answered by the principal director, finance director or company secretary. The position and the educational profiles of the respondents suggested they would have both tacit and formal knowledge with which to answer the questions and weigh up the costs and benefits of the audit when making the audit decision.

As in the wider population, the majority of the sample companies were at the smaller end of scale in terms of ownership and size. The vast majority (90%) had between one and four shareholders. In terms of size, 80% had a maximum turnover of £1m in their 2002 accounts, 89% had a maximum balance sheet total of £1.4m, and 78% had between 0 and 10 employees.

3.5 Variables in the analysis

Table 2 summarises the variables in the analysis.

Table 2 Demand for a voluntary audit: Variables in the analysis

Label	Description	Expected sign	Hypothesis tested
VOLAUDIT	Whether the company would have a voluntary audit	Dependent variable	
TOVER	Turnover in 2002 accounts	Positive	H1
CHECK	Extent of agreement that the audit provides a check on accounting records and systems	Positive	H2
QUALITY	Extent of agreement that the audit improves the quality of the financial information	Positive	H3
CREDIBLY	Extent of agreement that the audit improves the credibility of the financial information	Positive	H4
CREDITSC	Extent of agreement that the audit has a positive effect on the company's credit rating score	Positive	H5
EDUCATN	Whether the respondent has a degree, professional/vocational qualification or has studied or trained in business/ management subjects	Positive	H6
FAMILY	Whether the company is wholly family-owned	Negative	H7
EXOWNERS	Whether the company has shareholders without access to internal financial information	Positive	H8
BANK	Whether the statutory accounts are given to the bank and other providers of finance	Positive	H9

Table 3 describes the variables in the analysis and provides descriptive statistics where appropriate.[10]

Table 3 Demand for a voluntary audit: Descriptive statistics

Label	Data	Coding	N	Min	Max	Mean	SD
VOLAUDIT	Nominal	(1 = yes, 0 = no)	772	0	1	N/A	N/A
TOVER	Ratio	(£k)	790	.05	4738.27	691.07	1119.45
CHECK	Ordinal	(5 = agree, 1 = disagree)	697	1	5	4.05	1.19
QUALITY	Ordinal	(5 = agree, 1 = disagree)	687	1	5	3.35	1.38
CREDIBLY	Ordinal	(5 = agree, 1 = disagree)	688	1	5	3.95	1.18
CREDITSC	Ordinal	(5 = agree, 1 = disagree)	681	1	5	3.55	1.29
EDUCATN	Nominal	(1 = yes, 0 = no)	790	0	1	N/A	N/A
FAMILY	Nominal	(1 = yes, 0 = no)	785	0	1	N/A	N/A
EXOWNERS	Nominal	(1 = yes, 0 = no)	722	0	1	N/A	N/A
BANK	Nominal	(1 = yes, 0 = no)	790	0	1	N/A	N/A

VOLAUDIT is the dependent variable in the analysis (Question 14 in the questionnaire) and consists of two groups. The first group consists of cases where the directors would choose a voluntary audit and these companies were coded 1. The second group consisted of cases where the directors would not have a voluntary audit and these companies were coded 0. Non-responses were excluded.

TOVER measures turnover (the key size measure in UK law for audit exemption), as disclosed in the 2002 statutory accounts. It is used to test H1 and is expected to be positively associated with the demand for the audit.

[10] Strictly speaking, the mean cannot be calculated for ordinal data, since the numeric scale represents ranked nominal categories. It is given here as an indication rather than a measure of central tendency. The multivariate statistics were based on ranked data.

CHECK, QUALITY, CREDIBLY and CREDITSC represent management factors and are used to text H2 – H5. They capture whether the directors perceive the audit as providing a check on accounting records and systems, improving the quality or the credibility of the financial information and having a positive effect on the company's credit rating score (Questions 15a, 15c, 15d and 15h respectively). These variables are expected to be positively associated with the demand for the audit. They are coded on a scale of 1 to 5, where 5 = agree and 1 = disagree with the statement. Non-responses were excluded.

EDUCATN also represents management factors and is a proxy for the directors' knowledge of the costs and benefits of the audit (Question 23). It is used to test H6 and is a dummy variable that is expected to be positively associated with the demand for the audit. It is coded 1 if the respondent has a degree, professional/vocational qualification or has studied or trained in business/management subjects, and 0 if not.

FAMILY represents agency relationships with shareholders and captures whether the company is wholly family-owned (Question 1). It is used to test H7 and is expected to be negatively associated with the demand for the audit. It is a dummy variable that is coded 1 if the company is wholly family-owned and 0 if not. Non-responses were excluded.

EXOWNERS also represent agency relationships with shareholders and captures whether there are external shareholders (Question 3). It is a dummy variable that is used to test H8 and is expected to be positively associated with the demand for the audit. It is coded 1 if there are shareholders without access to internal financial information and 0 if not. Non-responses were excluded.

BANK represents agency relationships with lenders and captures whether the statutory accounts are given to the bank and other providers of finance (Question 18). It is a dummy variable that is used to test H9 and is expected to be positively associated with the demand for the audit. It is coded 1 if the company gives the statutory accounts to the bank and other providers of finance and 0 if not.

4. Results

4.1 Univariate and bivariate analysis

In 74% of companies, all the shareholders had access to internal financial information, which implies that the majority of companies were owner-managed; in 68% of cases the company was wholly family-owned.

A large proportion of companies (44%) had external funding in addition to the capital invested by the shareholders and retained profit. The most widely used source of external finance was the bank (69%) and 51% of the sample give a copy of the statutory accounts to the bank and other providers of finance. This is supported by the finding that the main users requesting the accounts to be audited in 2002 were the bank and other providers of finance (27%) and the shareholders.

Using a maximum turnover of £1m as a proxy for eligibility, analysis of their 2002 accounts on FAME showed that 58% of companies of this size took up audit exemption, compared with 42% who did not. The main reason given for not having the accounts audited was lower accountancy fees, but very few directors were able to provide details of the specific amount saved. Of those that did, the typical reduction was £1,000, which would appear to be valid as it matches the typical audit fee disclosed in the 2002 accounts.

The proposal to raise the audit exemption threshold to £4.8m was supported by 57% of the sample, whilst 35% believed that it should remain at £1m. The directors were divided on the question of whether they would have the accounts audited if there was no legal obligation to do so, with 56% intending to forgo the audit and 42% predicting that they would have a voluntary audit[11] (2% did not respond). There are some reservations on basing an analysis on predicted behaviour, but in this case it can be justified, as the directors' forecasts are almost identical to their decisions in the 2002 accounts.

4.2 Preliminary tests

Mann-Whitney tests of difference were conducted to establish the independence of the two groups in the dependent variable VOLAUDIT (those that would have a voluntary audit and those that would not) and the variables measured on a non-parametric ratio scale (TOVER) or ordinal scale (CHECK, QUALITY, CREDIBLY, CREDITSC). Table 4 shows the results.

Table 4 Demand for a voluntary audit: Mann-Whitney tests (non-parametric ratio and ordinal variables)

Variable	**VOLAUDIT**	**N**	**Mean rank**	**Sum of ranks**	**Mann-Whitney *U***	**Wilcoxon W**	**Z**	***p***
TOVER	0 No	438	311.29	136344.50				
	1 Yes	334	485.13	162033.50				
	Total	**772**			40203.50	136344.50	-10.731	.000
CHECK	0 No	362	285.45	103332.00				
	1 Yes	320	404.91	129571.00				
	Total	**682**			37629.00	103332.00	-8.519	.000
QUALITY	0 No	356	268.62	95629.00				
	1 Yes	316	412.97	130499.00				
	Total	**672**			32083.00	95629.00	-9.864	.000
CREDIBLY	0 No	358	278.17	99584.00				
	1 Yes	315	403.86	127217.00				
	Total	**673**			35323.00	99584.00	-8.851	.000
CREDITSC	0 No	355	273.52	97100.00				
	1 Yes	312	402.81	125678.00				
	Total	**667**			33910.00	97100.00	-8.928	.000

The low values of the probability statistics in Table 4 provide evidence of a significant difference between the two groups in each test ($p \leq 0.05$) and therefore these independent variables are included in the regression model.

Chi-square tests were used to measure the association between the two groups in the dependent variable (VOLAUDIT) and each of the independent variables measured on a

[11] If the threshold were raised to £4.8m, 79% of companies that are likely to be eligible for the first time predicted that they would not take up exemption, but would have a voluntary audit.

dichotomous nominal scale (FAMILY, EXOWNERS, BANK, EDUCATN). Table 5 shows the results.

Table 5 Demand for a voluntary audit: Chi-square tests (nominal variables)

Variable		**VOLAUDIT 0 No**	**1 Yes**	**N**	**Chi-square**	**df**	***p***
FAMILY	0 No	102	144	246			
	1 Yes	331	190	521			
	Total	**433**	**334**	**767**	33.103	1	.000
EXOWNERS	0 No	351	235	586			
	1 Yes	47	73	120			
	Total	**398**	**308**	**706**	17.406	1	.000
BANK	0 No	264	116	380			
	1 Yes	174	218	392			
	Total	**438**	**334**	**772**	49.468	1	.000
EDUCATN	0 No	124	105	229			
	1 Yes	314	229	543			
	Total	**438**	**334**	**772**	.888	1	.346

The probability statistics in Table 5 provide evidence of a significant positive association between the two groups in the dependent variable (VOLAUDIT) and the two categories in the independent variables FAMILY, EXOWNERS and BANK ($p \leq 0.05$). Therefore, these three variables can also be included in the regression model. However, the result for EDUCATN is non-significant ($p > 0.05$). This provides evidence to reject H6, as there is no significant difference between the audit decision and the educational profile of the directors.

4.3 Regression model

The logistic regression model tests the remaining hypotheses H1 – H5 and H7 – H9 and Table 6 presents the results.

Table 6 Demand for a voluntary audit: Logistic regression

Variable	**B**	**SE**	**Wald**	**df**	***p***	**Exp(B)**
TOVER	.001	.000	22.970	1	.000	1.001
CHECK	.258	.122	4.437	1	.035	1.294
QUALITY	.393	.103	14.664	1	.000	1.482
CREDIBLY	.137	.127	1.170	1	.279	1.147
CREDITSC	.245	.096	6.486	1	.011	1.277
FAMILY	-.789	.212	13.777	1	.000	.455
EXOWNERS	.660	.268	6.084	1	.014	1.935
BANK	.445	.216	4.235	1	.040	1.560
Constant	-4.176	.550	57.758	1	.000	.015

Notes: N = 599
Model summary: Chi-square 209.874; df 8; $p < 0.01$; -2 log likelihood 618.912; pseudo R^2 .394

Table 6 shows that the probability statistic for CREDIBLY is non-significant ($p > 0.05$). This provides evidence to reject H4, as the result means the audit decision is not significantly influenced by the view that the audit improves the credibility of the financial information. However, the results for TOVER, CHECK, QUALITY, CREDITSC, FAMILY, EXOWNERS and BANK are significant ($p \leq 0.05$). Moreover, the factor coefficient (B) for FAMILY indicates the expected negative relationship with the demand for the audit. Therefore, there is evidence to accept H1 – H3, H5 and H7 – H9.

Thus, the results show that the directors are likely to have a voluntary audit if the company has the following characteristics:

- It is larger in terms of turnover and the directors consider the audit provides a check on accounting records and systems, improves the quality of the financial information and has a positive effect on the credit rating score; and
- it is not wholly family-owned (ie there are non-family shareholders) and has shareholders without access to internal financial information; and
- the directors normally give a copy of the statutory accounts to the bank and other providers of finance.

The pseudo R^2 shown in the notes below Table 6 indicates that the independent variables in the regression model explain 39% of the demand for the audit. The high values of the Wald statistics and the low values of the probability statistics for TOVER, QUALITY and FAMILY compared with the other variables, indicate that turnover, perceptions that the audit improves the quality of the information and the existence of non-family shareholders are the most influential variables in the model.

5. Conclusions

5.1 General contribution

This logistic regression study of the factors that influence the decision to have a voluntary audit in small companies in the UK is based on research commissioned by the DTI. It is appropriate that the study has investigated the views of the directors, as they are the main users of the accounts (Page, 1984; Carsberg *et al.*, 1985; Barker and Noonan, 1996) and use them for a range of internal and external purposes (Collis and Jarvis, 2000). They also bear the cost of the audit.

The selection method and number of responses allow the findings of this study to be generalised to other active, independent, private limited companies filing full accounts with a maximum turnover of £4.8m and balance sheet total up to £2.4m. However, one limitation of the study is that the respondents did not fully represent companies at the lower end of the scale in terms of numbers of employees.

5.2 Discussion

The results show that if the audit exemption threshold is raised to a maximum turnover of £4.8m, the directors of companies of this size will be divided in their views. This confirms the finding of previous research by the author (Collis *et al.*, 2001b), which shows that companies fall into two distinct groups with differing needs.

Although 57% support the proposal to raise the threshold to £4.8m, 42% of companies of this size see sufficient benefits in having their accounts audited that they would choose to have a voluntary audit. The validity of this prediction is strengthened by the fact that this matches the proportion of currently eligible companies (those with a maximum turnover of £1m) that chose a voluntary audit of their 2002 accounts.

The results of logistic regression analysis reveal that the likelihood of the directors choosing a voluntary audit is higher if the company is larger in terms of turnover and they consider the audit provides a check on accounting records and systems, improves the quality of the financial information and has a positive effect on the company's credit rating score; in addition, if the company is not wholly family-owned, has shareholders without access to internal financial information and if the statutory accounts are normally given to the bank and other providers of finance.

Turnover represents the cost burden in the model. Thus, the larger the turnover, the lower the relative cost. To some extent, it can be argued that turnover also captures whether the company is large enough to have external or non-family shareholders and external borrowings. However, these factors are better explained by the theory that the directors are willing to bear the cost of the audit because of their beliefs about the net benefits to the company and the role the audited accounts play in reducing the cost of capital and supporting agency relationships with shareholder and providers of finance where there is information asymmetry.

These findings extend earlier research (Collis and Jarvis, 2000; Collis *et al.*, 2001b; Collis, 2003b) which examined the views of the directors of slightly smaller companies (maximum turnover £4.2m) in 1999. Two additional influences on the audit decision are identified by the present study. These relate to beliefs about the beneficial effect of the audit on the company's credit rating score and its role in providing assurance to shareholders without access to internal financial information.

5.3 Implications

The findings of this study should be of interest to the regulators, the accountancy profession, those who advise small companies, academics and the owners and directors of small companies themselves.

If the higher EU maxima are adopted for defining a small company in the UK, most companies of a similar size to those in this study will be free to choose whether or not to have the accounts audited. Among those that would be eligible to choose for the first time, it is likely that the vast majority (79% is the proportion suggested by this study) will choose a voluntary audit, on the basis that the benefits to the company outweigh the costs. This will be reassuring to small practitioners who rely on audit fee income from small company clients. It will also be reassuring to banks, lenders and other providers of credit who rely on the audited financial statements for assessing and/or monitoring risk. However, these parties have the economic power to ensure that their needs are met and it is important that future regulation continues to protect the needs of the shareholders requiring the additional assurance of an external audit.

The findings of this study provide evidence that size is not a sufficient measure on its own for capturing the costs and benefits of the audit. There are other qualitative factors. If thresholds are raised to EU levels, policy makers should be aware that the new category of small companies would contain two subgroups with differing needs. This is demonstrated by the significant proportion of directors whose audit decisions indicate that the benefits outweigh the costs. This heterogeneity should also be taken into account by those who contribute to the development of differential reporting on the basis of size at the international level.

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Appendix
Extract of questionnaire showing variables analysed

1. Is the company a family-owned business? *(Tick one box only)*

Wholly family-owned	☐	(1)
Partly family-owned	☐	(2)
None of the shareholders are related	☐	(0)

3. How many shareholders (owners) does the company have?

(a) Total number of shareholders	☐
Breakdown:	
(b) Number of shareholders with access to internal financial information	☐
(c) Number of shareholders <u>without</u> access to internal financial information	☐

11. If the statutory accounts were not audited last year but were audited previously, have overall accountancy costs decreased?

No		☐	(0)
Yes, by approximately	£	☐	

13. Do you think the turnover threshold for exemption from the statutory audit should be increased from £1m to £4.8m?
(Tick one box only)

Yes, increase to £4.8m		☐	(1)
No, stay at £1m		☐	(0)
Other	*£m*	☐	

14. Would you have the accounts audited even if the company were not legally required to do so?
(Tick one box only)

Yes, the accounts are already audited voluntarily	☐	(1)
Yes, the accounts would be audited voluntarily	☐	(2)
No	☐	(0)

Please give reasons for either answer

………

………...

15. What are your views on the following statements regarding the audit?
(Circle the number closest to your view)

	Agree				Disagree
(a) Provides a check on accounting records and systems	5	4	3	2	1
(b) Helps protect against fraud	5	4	3	2	1
(c) Improves the quality of the financial information	5	4	3	2	1
(d) Improves the credibility of the financial information	5	4	3	2	1
(e) Provides assurance to shareholders	5	4	3	2	1
(f) Provides assurance to the bank and other lenders	5	4	3	2	1
(g) Provides assurance to suppliers and trade creditors	5	4	3	2	1
(h) Has a positive effect on company's credit rating score	5	4	3	2	1

Other *(please state)*

………

………...

18. Apart from Companies House, who normally receives a copy of the company's statutory accounts?

(Tick as many boxes as apply)

(a) Shareholders ☐
(b) Bank and other providers of finance ☐
(c) Directors/managers who are <u>not</u> shareholders ☐
(d) Employees who are <u>not</u> shareholders ☐
(e) Major suppliers and trade creditors ☐
(f) Major customers ☐
(g) Inland Revenue ☐
Other *(please state)* ☐

....

19. If the accounts were audited last year, is it because any of the following users requested it?

(Tick as many boxes as apply)

(a) Shareholders ☐
(b) Bank and other providers of finance ☐
(c) Major suppliers and trade creditors ☐
(d) Major customers ☐
(e) Inland Revenue ☐
Other *(please state)* ☐

....

20. Apart from capital invested by the shareholders and retained profit, is the company currently financed by any of the following?

(Tick as many boxes as apply)

(a) Personal loans from family or friends. ☐
(b) Bank finance ☐
(c) Business angel capital ☐
(d) Venture capital ☐
(e) Leasing ☐
(f) Hire purchase ☐
(g) Factoring ☐
Other *(please state)* ☐

....

22. What is your position in the company?

(Tick one box only)

The sole director ☐ (1)
The principal director (eg managing director or chief executive) ☐ (2)
The finance director ☐ (3)
Other *(please state)* ☐

....

23. Do you have any of the following qualifications/training?

(Tick as many boxes as apply)

(a) Undergraduate or postgraduate degree ☐
(b) Professional/vocational qualification ☐
(c) Study/training in business or management subjects ☐