Materiality Thresholds in Accounting and Auditing: Some UK Evidence

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Abstract

This paper reports the telephone interviews with 12 auditors (Big 5 and non Big 5) and 14 non auditors on the materiality thresholds adopted by them or by their organisations. Non auditors include from finance directors, banker, lawyer, internal auditors, an academic, and technical directors of the Accounting Standards Board (ASB) and the Auditing Practices Board (APB) in the UK. This is in respond to the issuance of Statement of Auditing Standards (SAS) 220 on `Materiality and the Audit= by the APB in 1995 whereby no materiality threshold was specifically mentioned.

The findings showed that 10% of net profit before tax is the favourite threshold. This is close to recommendations from literature or due to influences by the literature themselves. A specific mathematical guideline could enhance harmonisation of reporting and interpretation of financial results.

Key words: materiality, audit risk, auditors, true and fair view.

Introduction

This study is concerned with the extent to which items, matters, or transactions, either on an individual or aggregate basis, upon disclosure in the financial statements, would significantly affect decisions of the addressees of financial statements. The Auditing Practices Board (APB) issued the Statement of Auditing Standard (SAS) on `Materiality and the Audit= (SAS 220) in 1995 but did not specify a mathematical measurement for materiality. SAS 220 went on to comment that materiality needs to be considered on a `relative basis= (para 3), but

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conceded that it is difficult to arrive at a specific mathematical measurement due to `materiality consists of both the quantitative and qualitative aspects= (para 3). The decisions of whether to audit and/or to disclose a particular item(s) in the financial statements depend on the auditors themselves. They are required to exercise their professional judgements and to determine the materiality threshold for each situation. This is becoming an increasing challenge to the profession as intensifying competitions among accounting firms in the UK has forced auditors to increase efficiency in discharging their duties while not neglecting their professional duty of care (Fearnley & Beattie [1994]). There is a constant call to be more cost-effective and efficient in audit processes, and to focus attentions on material items in testing and disclosure. Materiality becomes an important yardstick to decide the extent of testing, and the basis of evaluating adequacy and relevance of available evidence, and its effects on the truth and fairness (Nobes & Parker [1991]; Parker & Nobes [1991]; and Walton [1991]) of the financial statements. Expressing an opinion on a set of financial statements implies that the concept of materiality has been complied with.

A structured materiality guideline[1] could offer confidence to both preparers and users of financial information (Bernstein [1967]). Preparers could the feel confidence in the correctness of their decisions (Woolsey [1968, 1974], Bernstein [1967]), users could place reliance on the reported figures (Woolsey [1968, 1974], Bernstein [1967]), teachers in accounting could have a better basis to teach (Woolsey [1968, 1974], Bernstein [1967]), and financial statements would show a greater uniformity in the methods of preparing and presenting financial information (Woolsey [1968, 1974], Bernstein [1967], Hensley [1974]). In the auditing context, materiality guidelines would be useful not only in both the planning and evaluation stages, but would also facilitate comparability, act as a regulator of quality (Alcon [1976]), and assist auditors in decision making in situations where dilemmas arise as to whether to qualify an audit report and risk losing the client, or not to qualify the audit report and consequently face the risk and negligence (Jennings et al (1985b). A standard materiality threshold could avoid all these awkward situations, and save valuable decision time and audit costs to both preparers of financial statements and auditors. A structured guideline, if properly followed, could serve as a defence mechanism in future litigations (Chong [1992]).

However, a standard mathematical measurement could bring rigidity and restraint to the auditors= decision making, and because it is easier to measure,

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[1] Tables 2 and 3 give some indications of materiality thresholds recommended by researchers. Researchers who favoured a structured materiality guideline are Mortimer (1969); Dyer (1973); Boatman & Robertson (1974); Pattillo (1976); Hines (1979); Anderson (1980); Bates et al (1982); Krogstad et al (1984); Jennings et al (1985a); and Kneer et al (1985).

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auditors tend to focus attentions on quantitative rather than also considering the qualitative effects of the item(s) (FASB [1981], Holstrum & Messier [1982], Robinson & Fertuck [1985]). In the book on Auditing as Verification of Financial Information, Ruud (1989) concluded that there is `very little guidance as how to use the concept of materiality in auditing= (p.57). Despite these, practitioners and academics have constantly called for having a proper guidance.

As far as the APB in the UK is concerned, it has taken a positive step in the right direction to issue a guideline on materiality in auditing. However, apart from defining materiality and stressing the importance of materiality to the profession, the SAS failed to address the crucial issue of how would these guidelines be applied in practice. Merely issuing a Statement without offering proper and systematic guidance defeats the purposes of having a guideline in the first place. In the book on the Philosophy of Auditing, Flint (1988) pointed out that materiality should be considered in both the quantitative and qualitative aspects (p.129). Despite this, the SAS has neither identified the qualitative aspect of materiality. This approach is in contrast to other accounting bodies (see Table 1) whereby materiality thresholds were spelt out to guide practitioners and users. In general, these accounting bodies suggest that 10% of net profit before tax as the norm to measure materiality, while in a loss making year, 10% of the average 5-years= profit or loss before tax will be considered. These criteria were supported by Bernstein (1967, 1970), Chong (1992, 1993), Copeland and Frederick (1968), Frishkoff (1970), Messere (1976), Thomas (1978), Robinson and Fertuck (1985), and Turley and Cooper (1991). Apart from accounting bodies and body of literature, the 10% net profit before tax is also mentioned in various accounting textbooks and auditing manuals in the UK. For example, Porter et al(1996) mentioned that `although SAS 220 does not provide numerical guidelines or endorse their use, in practice the following percentage limit guidelines are widely used: a variation of 10% or more of the relevant base amount may be presumed to be material unless there is evidence to the contrary, a variation of 5% or less of the relevant base amount may be presumed to be immaterial, unless there is evidence to the contrary, and variations which lie between 5% and 10% of the relevant base amount, determination of materiality (or otherwise) depends on the particular circumstances= (pp.146 & 147). An appropriate base amount is `profit and loss statement items may be compared with profit before tax and exceptional items for the current year or the average pre tax profit for the last three years (including current year)= (p.146). As far as auditing manuals are concerned, Turley and Cooper (1991) conducted a survey on the audit manuals of 20 UK accounting firms (Big 6 are included), and concluded that the materiality thresholds adopted by these firms is 10% of net profits before tax (p.75). This is similar to the results of a separate survey conducted by Chandler (1985) on audit manuals in the UK (sample size of 5 of the Big 6 and 2 from non Big 6). Pratt (1990) surveyed audit manuals of the then Big 7 (Arthur Andersen was not included in Pratt=s study as this firm was not represented in New Zealand at the time of the study in 1990) in New Zealand and found that

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three firms considered 10% of net profit before tax is the threshold, two considered items more than 5% of net profit before tax, while two considered 10% net profit after tax as materiality thresholds (p.139).

It is interesting to note that the literature seem to report on non cash scenarios, while there is no known research on auditors= determinations for the threshold for cash-related situations. In a questionnaire survey, Mayper et al [1989] reported that mismanagement of cash will undermine credibility of systems of internal control of an organisation. However, the study did not suggest the materiality threshold for mismanagement of cash which led to failure of the control system. Cash is the most important and liquid asset to a company `and it is vulnerable to defalcation by employees and directors (Woolf [1997, p.390]; Porter et al [1996]). It is the responsibility of the management to ensure that a proper internal control system is installed to minimise defalcation (Woolf [1997, p.390]). However, there is no guideline on materiality level on disclosing cash defalcation in the financial statements[2]. The 1985 UK Companies Act (Schedule 9) requires that cash (both in hand and at banks) to be disclosed as a separate item in the balance sheet, but did not request for disclosing the amount relating to defalcation, or to mention materiality levels which would justify separate disclosure. As far as literature is concerned, there is no known systematic study[3] on materiality levels which recommends disclosure of defalcation of cash by employees and directors.

In view of the above, the following hypothesis is thereby formulated:

H_1: that the materiality level is 10% of net profit before tax, 10% of the five year average profit (or loss) before tax for loss making year, and the threshold on cash defalcation differs between employees and directors.

Materiality and audit risk

SAS 220 mentioned that in the process of determining materiality threshold, there is a need to assess audit risk (SAS 300) in each of the situations. Chong and Vinten (1994) described the relationships between materiality and audit risk as `the

2 FRS 3 (Reporting Financial Performance [1992]) requires all exceptional items to be separately disclosed. FRS 3 defined exceptional items as `material items which derived from events or transactions that fall within the ordinary activities of the reporting entity and which individually or, of a similar type, in aggregate need to be disclosed by virtue of their size or incidence if the financial statements are to give a true and fair view= (para 6). In view of this, if the defalcation is material, the amount should be separately disclosed as an exceptional items in the financial statements.

3 Checked to Proquest and Accounting and Business Index for 1990-1999.

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other side of the coin= (p.234) and `the Siamese twins= (p.247). SAS 300 (Accounting and Internal Control Systems and Audit Risk Assessment [1995]) identified three categories of risk: detection risk, control risk and inherent risk. However, nothing has been mentioned about the relationships between these categories of risk.

In the past two decades, audit risk models have been mentioned in auditing standards and guidelines (e.g. CICA [1980]; AICPA [1981, 1983]; APB [1987]), auditing literature (e.g. Warren [1979]; Cushing & Loebbecke [1983]; Aldersley [1989]; Kinney [1989]; Sennetti [1990]; Walz [1991]; Skerratt & Woodhead [1992]; Woodhead [1992]), and audit manuals (e.g. Gwilliam & Macve [1982]; Cushing & Loebbecke [1983]; Grobstein & Craig [1984]; Mullarkey [1984]; Pickett & Vinten [1997]; Sullivan [1984]; Turley & Cooper [1991]). The audit risk model is also widely applied in the practical world. Turley and Cooper's review of selected audit manuals in the UK noted that `(t)he most common approach ... (of the selected accounting firms), involves reference to the audit model which is contained in the US Statement of Auditing Standards no. 47 (AICPA [1983]) and ... the UK (draft) Auditing Guidelines on Sampling (APC [1987])= (1991, p. 60). A similar trend of practice is noted in the USA (Cushing & Loebbecke [1983]). There have been models constructed by Leslie et. al. [1979], Kinney [1989], Sennetti [1990], and extended by Skerratt and Woodhead [1992] based on the definition of audit risk by the AICPA [1983]. That is audit risk includes:

(1) risk that material errors exist (IR); and
(2) risk that these material errors are not detected by auditors. That is risk which is not detected or prevented by the entity's internal control structure (CR); and risk which is not detected by analytical procedures and other relevant substantive tests (DR).

Audit risk (AR) is thus equal to IR x CR x DR where IR is inherent risk that a given account balance or class of transactions contains material errors in the absence of internal control (Leslie [1984]). Dirsmith and Haskins [1991] note that inherent risk is the extent auditors have `... an understanding of a client's business and its environment' (p. 71). CR is control risk that auditors' assessment of the internal control structure fails to prevent or detect a material error that has occurred (Fields et. al. [1989]; Brown and Solomon [1990]). DR is the detection risk whereby auditors' assessment of the risk that analytical procedures and other relevant substantive tests would fail to detect errors that occur and are not prevented or detected by the internal control structure. However, SAS 300 does not address the relationships, if there is any, between AR, IR, DR, and CR.

Jiambalvo and Waller [1984] requested 13 auditors from one of the Big 8 firms to assess audit risk from case information about four hypothetical clients' accounts receivable. The subjects were divided into two groups. Group 1 was asked to make a direct holistic assessment of audit risk (AR1). Group 2 was asked first to

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consider and quantify audit risk for DR, IR, and CR, and then provide an assessment of AR (AR2). Jiambalvo and Waller [1984] found that there is no significant difference between AR1 and AR2, but there is a significant relationship between AR2 and DRxIRxCR. This indicates the multiplicative formula suggested by the SAS 39 (in the US) was probably not being strictly applied by the auditors. In replicating Jiambalvo and Waller's [1984] experiment, Daniels [1988] sent questionnaires to randomly selected thirty three audit managers from 9 of the 10 largest accounting firms in Oklahoma city. The results again confirmed that respondents are not following the literal interpretation of any of these three risk models in assessing audit risk for accounts receivable. 15 (45%) respondents assessed audit risk at 5%, while the multiplications of CR, DR and IR did not arrive at 5% (but at 7.5%). This could be due to auditors tend to assess the overall audit risk for audit assignments rather than looking into the components of each of the audit risk in separations(Daniel [1988, p.180]).

From the above discussions, the following hypothesis is formulated:

H_2: that there are no relationships between AR, DR, IR and CR.

Methodology

There is no known systematic study[4] through telephone interviews on how auditors and non auditors determine materiality thresholds. This paper responds to this need. Telephone interviews were carried out because this will not only `reduce the costs associated with face to face interviews, but still allows some aspects of personal contact= (Hussey & Hussey [1997, p.163], Baker [1994]), but could also increase `the response rate to as high as 90%= (Hussey & Hussey [1997, p.163])[5].

4 Checked to Proquest and Accounting and Business Index for 1990-1999.

5 Baker (1994) argued that `interviewing respondents over the telephone has become increasingly popular in recent years=(p.201). this is because telephone interviews are (1) cheap to be carried out. (2) take less time and effort (compared to questionnaires and face to face interviews). and (3) they are more impersonal than face to face interviews, since the interviewer cannot see the interviewees, and respondents may feel more willing to divulge personal information than in a face to face encounter (p.201-202).

The disadvantages of having telephone interviews are: (1) selecting telephone numbers that actually lead to completed interviews involves a large number of tries to achieve a small number of successes. (2) there is less motivation generated among interviewees in a telephone interviews because of the reduced stimulation of not seeing the interviewer in person. (3) facilitating certain questions by giving the interviewees a list with a choices, cards to sort, or some other cue or form of visual assistance cannot be done in the same manner in a telephone survey (p.202).

This research did not encounter the above problem of reluctance to participate in the interviews. In a few cases, follow up telephone calls were made due unavailability of the interviewees (eg at meetings, off for holidays, out of office).

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Telephone interviews could also establish whether respondents reacted to the situations based on practice or policy (Berry & Warring [1995, p.142])[6].

Samples

26 individuals were selected for interviews[7]. 12 were auditors and 14 non auditors. Auditors consist of 6 technical partners from each of the then Big 6, and the remaining were from partners of the non Big 6 (3 medium size practices and 3 sole practitioners). The non-auditor group includes preparers[8] and users[9] of financial statements. The semi structured interviews were tape-recorded[10], and notes were taken concurrently[11]. On average, each telephone conversation took 22 minutes[12], 12 minutes longer than envisaged[13]. The importance and intentions of the telephone surveys were explained to each of the interviewees. Interview notes were served as

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6 Berry and Waring (1995) interviewed 21 bank lending officers in the UK in 1990 on the pattern of using financial information for lending purposes. The purpose of conducting interviews was to establish whether there are any inconsistency in the results derived from the questionnaires and from the interviews. They concluded that the results concur with their earlier questionnaire surveys.

7 The telephone interviews do not attempt to establish any differences among the respondents in terms of location, age, seniority, size of firms or between auditors and non auditors.

8 These are four finance directors or qualified accountants who are responsible to decide materiality thresholds for disclosing items in the financial statements.

9 These consist of banker (1), lawyer (1), internal auditors (3), representatives from the accounting and auditing bodies (3), and an academic who sits on the APB in the UK.

10 Interviewees have been told about the recording of the conversations. Apart from four from the auditors= group and three from non auditors= group, remaining interviewees do not object to have the conversations be recorded, but insisted on having the tapes destroyed after the transcription.

11 Notes were taken in case the tapes were corrupted before or during the interviews. Once these conversations were transcribed, and checked for accuracy and completion, the tapes were destroyed.

12 The average number of minutes of telephone conversations with auditors with 20.5, and for non auditors 23. The conversations with non auditors were slightly longer because some interviewees were not familiar with the materiality concept, and needed some explanations. The longest telephone conversations with the auditors= group was 28 minutes and 40 minutes for the non auditors.

13 This is because respondents were prepared to share their experiences of how material items are treated and comment upon the validity of having a guideline for materiality for accounting and auditing professions.

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guidance for the survey. Interviewees were allowed to interrupt, add, return to previous questions, and to comment upon in the course of the interviews. Flexibility which built in this approach allows interviewees to feel relax in contributing towards the issue of materiality and audit risk, and to respond more naturally towards the questions and the issues. Altogether nine questions were raise at the interviews with auditors and eight[14] with non auditors.

Interview questions

These questions were derived from literature on materiality and audit risk. Interviewees who are auditors will be addressed an additional question on audit risk as it has serious bearings in the decision making process on the thresholds by the auditors.

1. **10% pre tax profit seems to be the most favourite criterion to determine materiality threshold, while for cash defalcations, 1% of cash balance is the favourite. Any comments?**

Altogether 20 (77%) interviewees agreed to the 10% net profit before tax as the most favourite criterion to determine materiality, while four (15%) interviewees suggested 5% net profit before tax is the favourite. The results of the interviews showed that 10% net profit before tax is the favourite determinant for materiality in the UK.

For cash defalcations, except for one interviewee who mentioned that control of cash is not within the interviewee=s remit, all the other 25 (96%) agreed that 1% cash balance is a reasonable measurement on cases relating to cash defalcation. In view of this, **H_1: that the materiality level is 10% of net profit before tax, 10% of the five year average profit (or loss) before tax for loss making year, and the threshold on cash defalcation differs between employees and directors** is supported.

2. **Do you agree that audit risk = control risk x detection risk x inherent risk? How does your firm decide the audit risk?**

Results of this question is based on interviews with auditors as audit risk mainly affect the auditors in the audit processes. In view of this, this question was not raised with non auditors. All 12 auditors interviewed felt that the formula does not work in practise as it is difficult to arrive at the probability of each of the elements of control risk, detection risk and inherent risk.

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14 Auditors were asked an additional question on audit risk (that is question number 2). Respondents were asked to comment on the validity of audit risk formula which stipulated that the probability of audit risk is equal to the probabilities of control risk multiplied by detection risk multiplied by inherent risk, and the approach (if any) they adopted in practices.

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Interviewees generally derived that probability of audit risk based on the last and previous years= audit experience which they have had with the clients, nature of clients= businesses, and results of compliance testings of each audit assignment. Results from the interviewees support the notion that the formula on audit risk is not appropriate in practise. In view of this, **H_2: that there are no relationships between AR, DR, IR and CR** is supported.

3. Do you favour a guideline with specific criteria for materiality?

The intention of raising this question through the telephone surveys is to assess whether a guideline for materiality is needed for the accounting and auditing professions, and to find out materiality thresholds and criteria currently adopted by individuals and their organisations.

Altogether 18 (69%) interviewees supported the notion of having a specific criterion for materiality. This suggestion may enhance consistency in disclosing material items in the financial statements and to ease comparisons, and may be useful for decision making by users. However, eight (31%) do not support the publications of a guideline for materiality as they reckoned that auditors and preparers are the best to apply professional judgements for different situations, and because of the difficulties of publishing a specific guideline suitable for all industries.

4. Who should design the specific criteria?

This question may raise some controversial concern as the APB in the UK has issued the audit guideline SAS 220 for the auditing profession, but the Accounting Standards Board has yet to publish a similar standard for the accounting profession.

Interviewees in favour of having materiality guideline seem to have split opinions as to who (or which bodies) is the most appropriate to design materiality guidelines. Three interviewees preferred the Auditing Practices Board (APB), four suggested for the Accounting Standards Board (ASB), while nine agreed that these criteria should be published jointly by the APB and ASB. These two bodies should consult each other on the appropriate guidelines to be issued in the UK[15]. However, seven (27%) interviewees opposed to the publications of any specific materiality thresholds in the UK. Results of these interviews support the notion that there is a need to issue a guideline, and the guideline needs to spell out the specific thresholds

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15 Spoke to technical directors of APB (John Grant) and ASB (Allan Cook) in April 1998. They confirmed that there are regular meetings and consultations between them on various issues including statements to be issued in the future.

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and criteria applicable by professions and industries in the UK. Both APB and the ASB will be jointly responsible to issue the guideline.

5. What is the materiality thresholds you would use to disclose items in the financial statements?

This intends to serve as a follow up of question number 1 above. This gives opportunities to industries to express views on thresholds which they may consider different from the literature. Eight interviewees agreed that 10% net profit before tax will be the suggested criterion for measuring materiality, while five prefer 5% net profit before tax, and three opted for 5-10% net profit before tax as the range for materiality. 10% net profit remains the favourite measurement. However, three interviewees suggested not to have any materiality criteria as it is difficult to arrive at a specific guideline which could be suitable for all situations. Conclusions derived from these interviews showed that net profit before tax is the favourite criterion, while 10% is the recommended threshold.

6. Should materiality thresholds be disclosed in the financial statements?

Disclosure of relevant information in the financial statements could enhance users in the decision making process (Gray et al [1995]). Similarly, this applies to disclosure of materiality thresholds in the financial statements. There is a need to consider and balance the calls of relevance and understandability. Too much disclosure in the financial statements may confuse users, while too little may deprive them from making appropriate economic decisions.

The decisions on whether to disclose materiality thresholds in the financial statements seem to be quite narrow. 13 (50%) of the interviewees do not agree materiality thresholds which are applied in the course of preparing the financial statements to be disclosed. This is because this additional disclosure may further confuse users as they may not appreciate the implications of disclosure. However, those 11 interviewees who suggested that disclosure is needed, supported the idea of this additional disclosure as this may assist users in decision making. They suggested that if disclosure is made, materiality thresholds should be made in the notes to the accounts.

7. Is there any event which you would disclose in the financial statements, regardless of the amount?

Interviewees were requested to comment upon disclosure of items specifically requested by Schedule 4 of the Companies Act 1985[16] and items

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16 The UK 1985 Companies Act specifically requested the following items to be disclosed, irrespective of materiality thresholds: depreciation of fixed assets, directors remuneration, audit fees, fees paid and payable for management services of the audit firm and other professional firms, and lease and hire of plant and equipment.

relating to cash defalcations by directors and cash defalcations by employees of a company. 18 (69%) interviewees suggested that materiality thresholds should not be applied to all the statutorily required disclosure items, and those related to defalcations by directors, while 1% of cash balance is the recommended threshold for defalcations by employees.

8. Does your company have a materiality guideline? Any intention to have one in the future?

This question intended to capture the extent in which individual professional firms or business organisations have guidelines on materiality in the course of discharging their respective duties of care. Three interviewees currently have a materiality guideline within their organisations[17]. 11 (42%) interviewees who do not currently have guidelines intend to pursue of having one in the future. 10% net profit before tax remains the favourite choice (with six of the interviewees), followed by 5% net profit before tax (in two cases), 5-10% of net profit before tax (for one case), and two interviewees are prepared to update their manuals using the recommended guidelines (if any) of the APB and the ASB. This shows that individuals are prepared to have a guideline for their organisations or audit practices in the UK. Interviewees who currently do not have materiality guidelines, decisions on materiality thresholds will be carried out by engaging partners. For non auditors, finance directors or the accountants decide the thresholds in the course of preparing the financial statements.

9. Any other comments or information you wish to add on what we had discussed?

This concluding question allows interviewees to add further comments (if any) on the topic of materiality and the content of SAS 220 issued by the APB. Interviewees expressed interested in this topic, and agreed that 10% net profit before tax is the favourite determinant of materiality in the UK. They are interested to see that APB and the ASB should jointly publish a specific guideline on materiality thresholds in the UK.

Conclusions and Limitations

The above methodology confirmed 10% of net profit before tax is the favourite determinant for materiality in the UK. This is in line with literature, audit manuals, and auditing textbooks reported earlier. Interviewees are interested to see published mathamatic guidelines for preparing and auditing financial statements in due course. They are prepared to accept, and to change their in-house manuals if the APB and/or ASB decide to publish a specific mathematical guideline in future. At the moment, engaging partners (for practising firms of accountants) and finance

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17 10% net profit before tax (for one case), and 10% net revenue or aggregate assets (for the other two cases).

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directors (for business organisations) determine guidelines for the respective organisations. There is a support to disclose materiality thresholds in the notes to the accounts of financial statements. Additional disclosure will enhance decision making processes of financial users.

These results implied that auditors and non auditors in the UK tend to apply what they have learnt from textbooks, accounting and auditing standards of other countries, and from various literature on materiality. The norm of 10% of net profit before tax seems to be the convenient threshold for most, if not all, situations. Influence from these sources of knowledge have strong impact on accountants and auditors in their daily practices, and these knowledge could have been picked up during their training days. The idea of 10% of net profit could have been picked up from in-house audit manuals, and various auditing textbooks, which could undermine their independence in decision making and judgement processes. Qualified accountants will gradually instil the idea of 10% net profit before tax in commerce and industries, and non auditors may have the habit of picking up these norm of practices by auditors, and the convenient percentage has gradually, sift into organisations and the audit industry. Accepting it as a norm is a welcome sign, as auditors and non auditors alike have similar approach and stance on deciding material items, but this may distract auditors and preparers to consider qualitative aspect of the items. The APB and the ASB should recognise these general practices by the society, and need to consider publishing the mathematical thresholds in the Statement. Publishing these thresholds does not preclude auditors and preparers to assess the non quantitative aspects, but could help to streamline decisions.

There are a number of limitations of this type of research which must be considered when examining the findings. The samples were of a limited size. The results of the interviews also relate to a particular period of time. Also, interviewees may not give the honest answers of whether they will actually carry out what they preached over the interviews. The other limitation is there is of no weighting being placed on results of the interviews. It is difficult to carry out the weighting since these are opinions of individual commentators, rather than who should carry the most authority on this topic.

Using the principles of stakeholder theory[18], there is a need to ensure that

18 Caroll (1996) felt that stakeholders consist of consumers, suppliers, government, competitors, communities, employees and stockholders (pp.84-88), while Buchholz and Rosenthal (1997) argued that stakeholder theory assumes that stakeholders are individual entities that are clearly identifiable by management, and that their interests can be taken into account in the decision making processes (p. 182).

In view of this, suggestions put forward by stakeholders should carry heavier weighting in this interviewing process.

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information contained in the financial statements is adequate for decision making (Buchholz & Rosenthal [1997], Philips [1997], Mitchell et al [1997]). In view of this, the opinions of users of financial statements should be given priority and a heavier weighting. However, decisions and suggestions by others should not be discounted.

Although the purpose of this research was not to examine stakeholders= perspectives on materiality, it is instructive that the nearest proxies in the interviews were a banker, a lawyer, and two internal auditors, and they all came down heavily to support for a need for a guideline by the accounting and auditing professions, and to call for disclosing details of the materiality thresholds in the notes to the financial accounts. In view of this, the accounting and auditing bodies need to seriously consider the calls of having a specific materiality guideline in the UK. These move may hopefully reduce the volume of litigatious cases which may go through the courts in the future.

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Table 1: Guidelines recommended by accounting bodies

ACCOUNTING BODY	MATERIALITY GUIDELINES RECOMMENDED
Australian Accounting Research Foundation [1974] and New Zealand Society of Accountants [1985]	'an item is: (a) material if it is >10% of the appropriate base; (b) immaterial if it is <5% of the appropriate base amount: and (c) subject to judgemental decisions if it lies between 5-10% of the appropriate base amount. Appropriate base means: (a) for errors in profit and loss accounts: compared with: (I) operating profit for the current year; or (ii) average operating profits for the last 5 years; whichever is relevant; (b) for errors in balance sheet: lower of (I) total share capital plus reserves; and (ii) appropriate balance sheet class total.'
The Canadian Institute of Chartered Accountants [1987]	In normal circumstances, with respect to financial statements of profit-oriented enterprises prepared for general purpose use, matters which individually or in the aggregate would have an effect of altering income before income taxes and extraordinary items by less than five per cent might be considered to be immaterial, and by more than ten per cent to be material. Equivalent rules-of-thumb can also be expressed as appropriate percentages of: Revenue; gross profit; total assets; shareholders' equity; account balances or by using a blended method that combines some or all of the above measures with a weighted for each [Appendix, p. 12]

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The Canadian Institute of Chartered Accountants [1992]	For financial statements of profit-oriented enterprises prepared for general purpose use, materiality might be considered in terms of a range between 5% and 10% of income before income taxes. Matters which individually or in the aggregate have the effect of altering income before income taxes by less than 5% might be considered to be immaterial, and by more than 10%, to be material. [para. 6] When the income base is not considered to be appropriate, such as when the ratio of pre-tax income to total sales volume or assets is so low that it provides an unrealistic low base for determining materiality for audit purposes, materiality might be expressed in terms of percentage ranges applied to another base such as assets, equity, revenue or gross profit. For example: (a) 0.5%-1% of assets; (b) 0.5%-5% of equity; (c) 0.5%-1% of revenue; (d) 0.5%-5% of gross profit. Alternatively, a blended method is sometimes used which combines the results of each of the foregoing bases and the income base, with a weighting for each. [para 8] In the case of non-profit entities, it appears to be quite common to measure materiality in terms of a range between 0.5% and 2% of total expenses or total revenues depending on the size of the entity. [para 9]
The South African Institute of Chartered Accountants [1984]	The possible range for determining planning materiality is: Gross revenue : 0.5-1% Total assets : 1-2% Gross profit : 1-2% Shareholders' equity : 2-5% Net profit : 5-10%
Anderson [1973] was commissioned by the Research and Publications Committee of the Institute of Chartered Accountants of Scotland to carry out research on materiality guideline.	(a) a profit and loss item is considered material if it exceeds 10% of the standard net profits; (b) a statutorily-required disclosure profit and loss item is considered material if it exceeds (I) 5% of total expenses for an expense item; or (ii) 5% of total income for an income item; and (c) a balance sheet item is considered material if it exceeds (I) 5% of total assets; or (ii) 10% of the balance sheet caption. A standard profit is the average profits before tax for the preceding five years; but during a loss-making year or if the company is having an abnormally low profits for a number of years, then the standard profits should be based on the profit trend of the industry as a whole.

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Table 2: Samples of academic research on materiality

PROFIT AND LOSS ITEMS	
(a) 0.2%-10% of turnover	Plumhoff [1952]; Anderson [1977]; Towers [1986]; Woolf [1994], Turley and Cooper [1991]
(b) 0.5%-5% of gross profit	Carmichael [1969]
(c) 0.5%-20% of net profits	Bernstein [1967,1970]; Copeland and Frederick [1968]; Frishkoff [1970]; Neumann [1968]; Messere [1976]; Thomas [1978]; Robinson and Fertuck [1985]; Turley and Cooper [1991]; Chong [1992, 1993]
(d) 0.1%-5% of total assets	Woolf [1994]; Turley and Cooper [1991]
BALANCE SHEET ITEMS	
(a) 10%-20% of related total	Plumhoff [1952]; Mitchell [1972]; Towers [1986]
(b) 0.5%-5% of gross profit	Carmichael [1969]
(c) 0.1%-10% of total assets	Mitchell [1972]; Woolf [1994]; Turley and Cooper [1991]
(d) 10% of total liabilities	Mitchell [1972]
(e) 10% of equity	Mitchell [1972]
(f) 0.2%-10% of turnover	Woolf [1994]; Turley and Cooper [1991]
(g) 3.3%-36% of net profit	Turley and Cooper [1991]; Chong [1992, 1993]

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