MALAYSIAN ACCOUNTING REVIEW

Contents

The Accounting World Post-Enron, Tyco, Vivendi, Worldcom, Xerox...: Reflections On Being Part Of The Solution

Do External Auditors Perform A Corporate Governance Role In Emerging Markets? Evidence From East Asia

The Relevance Of Value Chain Analysis For SMEs: A Case Study

Directors' Remuneration And Firm Performance: Malaysian Evidence

Quality Of Worklife And Organizational Commitment Among Malaysian Public And Government Accountants

Using The Hofstede-gray Framework To Argue Normatively For An Extension Of Islamic Corporate Reports

> Value-Relevance Of Accounting Numbers: An Empirical Investigation Of Purchased Goodwill

Materiality Judgments On Audit Opinions

Early Adoption Of MASB 22 (Segment Reporting) By Malaysian Listed Companies

Utilizing A Structured Case Method In Financial Accounting Within A Problem-based Learning Framework



UNIVERSITI TEKNOLOGI MARA

INFOREC



MALAYSIAN INSTITUTE OF ACCOUNTANTS

MALAYSIAN ACCOUNTING REVIEW

Joint Sponsors

Malaysian Institute of Accountants (MIA) Universiti Teknologi MARA (UiTM)

Managing Editor

Associate Professor Dr Normah Omar

Journal Administrators

Ms Kalsom Salleh Ms Aida Maria Ismail Ms Anisah Mahmood

Editorial Advisory Board

Prof Dr Ibrahim Kamal Abd. Rahman Prof Dr Syed Noh Syed Ahmad Assoc. Prof Dr Zubaidah Zainal Abidin Assoc. Prof Dr Noorzan Mohd Nor Prof Dr Takiah Mohd Iskandar Assoc. Prof Dr Muhamad Tavib Assoc. Prof Dr Arfah Salleh Assoc. Prof Dr Maliah Sulaiman Assoc, Prof Dr Hasnah Haron Assoc. Prof Dr Susela Devi Prof Akira Nishimura Prof. Dennis Taylor Prof Samuel Chan Prof Chan Jane Lin Assoc. Prof Dr Foo See Liang Prof R.S.O Wallace (deceased) Prof Shahrokh Saudagaran Assoc, Prof Dr Sakthi Mahenthiran Prof Dr Christine Malline Assoc. Prof Dr Supapun Ruttanaporn

Address all correspondence to:

Journal Administrator Malaysian Accounting Review Faculty of Accountancy Universiti Teknologi MARA 40200 Shah Alam, Selangor, MALAYSIA Universiti Teknologi MARA

Universiti Teknologi MARA Universiti Teknologi MARA Universiti Teknologi MARA

Universiti Teknologi MARA Universiti Teknologi MARA Universiti Teknologi MARA Universiti Teknologi MARA Universiti Kebangsaan Malaysia Universiti Utara Malaysia Universiti Putra Malaysia International Islamic University, Malaysia Universiti Sains Malaysia University of Malaya Kyushu Sango University, Japan University of Adelaide, Australia The Hong Kong Polytechnic University National Taiwan University Nanyang Technological University, Singapore King Fahd University of Petroleum & Mineral Oklahoma State University, USA Butler University, USA University of Birmingham, UK Chulalongkorn University, Thailand

e-mail: dr.normah@accountant.com or dibra571@salam.uitm.edu.my

Disclaimer

The view and opinions expressed therein are those of the individual authors, and the publication of these statements in Malaysian Accounting Review does not imply endorsement by the publisher or the editorial staff. Copyright is versed jointly in University Teknologi MARA and the Malaysian Institute of Accountants.

CONTENTS								
2	The Accounting World Post-Enron, Tyco, Vivendi, Worldcom, Xerox: Reflections On Being Part Of The Solution Shahrokh M. Saudagaran							
13	Do External Auditors Perform A Corporate Governance Role In Emerging Markets? Evidence From East Asia Joseph P. H. Fan and T.J. Wong							
46	The Relevance Of Value Chain Analysis For SMEs: A Case Study Sakthi Mahenthiran and Fatimah Bujang							
57	Directors' Remuneration And Firm Performance: Malaysian Evidence Salleh Hassan, Theo Christopher and Robert Evans							
68	Quality Of Worklife And Organizational Commitment Among Malaysian Public And Government Accountants Mustafa Mohd Hanefah, Ali Yusob Md Zain, Razali MAT Zain and Hamzah Ismail							
81	Using The Hofstede-Gray Framework To Argue Normatively For An Extension Of Islamic Corporate Reports Maliah bt. Sulaiman and Roger Willett							
106	Value-Relevance Of Accounting Numbers: An Empirical Investigation Of Purchased Goodwill Muhd Kamil Ibrahim, Marzita Mohd Said, Radziah Abd Latif and Zaleha Abd Shukur							
124	Materiality Judgments On Audit Opinions Takiah Mohd. Iskandar							
139	Early Adoption Of MASB 22 (Segment Reporting) By Malaysian Listed Companies Wan Nordin Wan-Hussin, Noriah Che-Adam, Nor Asma Lode and Hasnah Kamardin							
153	Utilizing A Structured Case Method In Financial Accounting Within A Problem- based Learning Framework Jeffrey Faux							

MATERIALITY JUDGMENTS ON AUDIT OPINIONS

3

Takiah Mohd. Iskandar Accounting Department Faculty of Business Management Universiti Kebangsaan Malaysia

Abstract

Materiality is an important criterion needed for issuing an audit opinion. However, the guidance as how materiality should be judged is not clear. Research results show that "percentage effect of an item on net profit" is the most important variable in making materiality judgment. However, there is lack of consensus about what is the appropriate threshold. The objective of this paper is to study two important variables, industry type and industry specialization, that may have contributed to the inconsistencies in materiality judgments. The study also attempts to determine the specific threshold used for issuing an audit qualification. Results of an experiment indicate that the threshold for "except for" and adverse opinions are about 9% and 31 % respectively. The study finds that the interaction between industry type and industry specialization affects opinion thresholds significantly at p=.004. The study shows that specialists of a particular industry differ from specialists of another industry in their opinion materiality thresholds. Hence, a consideration should be given for the inclusion of more specific guidance in the standards. In the absence of definite guidelines on the appropriate materiality thresholds, auditors have to apply their professional judgments as to the likely threshold that would be appropriate for the different types of audit opinion.

INTRODUCTION

Materiality is a significant concept that underlies the reporting of financial information. It has an important implication on auditor's functions of expressing an opinion on the fairness of financial statements (Woolsey, 1954a&b). Auditors rely on the concept of materiality during the conduct of an audit. They use professional judgments at both the planning and evaluation stages to obtain reasonable assurance of detecting material errors or misstatements (Morris & Nichols, 1998). In either stage, the critical issue is resolving how materiality should be judged (Steinbart, 1987). For the purpose of an audit, paragraph 3 of ISA 320 prescribes materiality according to its definition in the International Accounting Standards Committee as "[I]nformation is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial statements. Materiality depends on the size of the item or error judged in the particular circumstances of its omission or misstatement. Thus, materiality provides a threshold or cut-off point rather than being a primary qualitative characteristic which information must have if it is to be useful."

The area of materiality has been a problem for auditors. This problem is indicated by the lack of consensus in the findings of past studies on materiality judgments within the audit profession (e.g. Frishkoff, 1970; Krogstad et al, 1984; Morris & Nichols, 1988; Chewning *et al*, 1989). Materiality problems arise because of the absence of criteria to guide the application of a judgment on materiality. An effort to formulate standards of materiality taking into account all considerations entering into an experienced human judgment was not successful (FASB, 1980, para. 131). Despite the need for guidelines on materiality (Mayper, 1982; Morris et al., 1984; Jennings, Kneer, and Reckers, 1987, none has been developed except in Australia. In Australia, for example, AAS 5 "Materiality" and AASB 1031 "Materiality" specify that the materiality threshold lies somewhere within the range of 5% to 10% of the appropriate base. However, there is evidence that items below the 5% standard are considered material (Iskandar & Iselin 1999). There is no guideline within the 5% to 10% range. Within this range, auditors' individual professional judgments are required and which are likely to be different. In the absence of authoritative materiality guidelines, accountants often use their own rules of thumb (Jordan, Henderson & Gordon, 1991).

As materiality depends on the size of the item judged in particular circumstances, a threshold or cut-off point is needed in order for it to be useful (ISA 320). In the case of type of audit opinion, the threshold is the percentage of the base amount where an item causes a change from one type of audit report to another type. However, answers to questions as to when audit qualifications need to be issued if proper accounting entry or disclosures are not made, are yet to be determined. The degree of materiality of the financial matter included in the audit qualification is an important consideration when the auditor decides on the type of audit opinion. The choice of audit opinion type involves auditors' materiality judgments. Where there is a dispute over uncorrected misstatements, for instance, auditors would base their decisions on the type of opinions on the final assessment of materiality (ISA 320).

The type of audit opinion reflects the degree of materiality as judged by auditors. Auditors issue an unqualified opinion if they conclude that the financial statements give a true and fair view of the operating result and the financial position of a firm. ISA 700, in paragraph 27, describes an unqualified opinion as an indication of auditors' satisfaction in all material respects with the matters dealt with. In certain circumstances, however, auditors are not able to

express an unqualified opinion due to some limitations, uncertainties or disagreements with the management, the effect of which may be material to the financial report. In this situation, auditors may consider qualifying their audit opinion by issuing either an "except for" opinion or an adverse opinion. When making the choice between these types of audit qualification, the materiality of the subject of the qualification is the primary factor. The more significant the degree of materiality involved in auditors' judgments, the more severe will be the opinion issued by auditors. The effect of an adverse opinion is considered to be more severe than that of an "except for" opinion.

The objective of this study is to determine materiality thresholds between different types of audit opinion. The first threshold is between an unqualified audit opinion and an "except for" audit opinion, and the second threshold is between an "except for" audit opinion and an adverse opinion. These thresholds can be expressed in terms of the percentage effect of an item on net profit where an item in dispute causes a change from one type of audit report to another. The researcher believes that the second threshold will occur at a higher materiality level than the first threshold.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Percentage Effects on Net Profit

In the past, the percentage effect of an item on net profit has been consistently found to be the most important factor in making materiality judgments (e.g. Woolsey 1954; Pattillo 1976; Messier 1983; Jennings, Kneer & Reckers 1987; Carpenter, Dirsmith & Gupta 1994; Iskandar & Iselin 1999; Iselin & Iskandar 2000). The importance of percentage effect of an item on net profit as a single determinant of materiality exists at the planning stage of audit judgments as well as at the financial statement audit judgment stage. Percentage effect of an item on profit represents the amount of an item as a percentage of the firm's net profit after tax and before extraordinary items. Findings of previous studies indicate that the higher percentage effect of an item on net profit to determine whether the findings will remain consistent with those of past studies upon the introduction into the judgments of additional variables such as industry type and industry specialization.

Past studies use percentage effect on net profit (i.e. income after income tax and before extraordinary items) as a way to measure materiality thresholds (Iskandar & Iselin 1999; Iselin & Iskandar 2000). In this study, percentage effect of an item on net profit is used to establish the thresholds for materiality of the two types of audit opinion. These different opinion thresholds are the threshold between 'unqualified audit opinions' and "except for" audit opinion,' and the threshold between "except for" audit opinion' and 'adverse opinion'. The outcome of auditors' materiality judgments is reflected in the type of audit opinion that auditors recommend issuing if a proper accounting and/or disclosure are not given to the item. The decision on the type of audit opinion depends on auditors' judgments of the materiality of the effect the item has on net profit. If the effect of the item on net profit is material, auditors may issue a qualified opinion (i.e. an "except for" opinion). The more material is the effect of the item on net profit, the more severe the audit qualification (i.e. an adverse opinion) that would be recommended.

The discussion leads to the following proposition.

Proposition 1:

Materiality thresholds of auditors for "except for" audit opinions will be lower than those for adverse opinions.

Industry Type

There is evidence that industry is a contextual variable to influence materiality judgments (e.g. Steinbert 1987; Krogstad *et al.* 1984). As mentioned above, industry affects auditors' materiality judgments at the audit planning stage (Steinbert 1987) and financial statements stage (Krogstad *et al.* 1984). Although Krogstad *et al.* (1984) has included industry as one factor in their study of materiality judgments, but the variable was not properly manipulated resulting in effects of industry diversity and industry growth being confounded. Meanwhile, the Krogstad *et al.* (1984) study has not been able to generalize the findings on the effects of industry, which is based on the work of one subject. Hence, a meaningful conclusion cannot be derived from the results of the above study.

This study investigates further industry variable in the context of audit opinion materiality judgments. It is concluded that industry type effects may have contributed to the diversity of results in past studies on materiality judgments. Although the potential effect of industry type on auditors' materiality judgments is clearly evident, past research did not fully consider this variable. Hence, the nature of the effects is not clear. The objective of this study is to examine the potential effects of the industry type variable in order to provide empirical evidence of industry type effects on auditors' judgments of materiality.

This study expects that the industry of the firm may impact on materiality judgments in the form of different materiality thresholds used by auditors in their judgments for different industries. With respect to industry specialization, auditors are expected to have developed specific knowledge structure (e.g. Bonner & Lewis, 1990) through their experience acquired during the audit of a particular industry they specialize in. This study examines how these variables influence auditors' judgments inside and outside industries they are familiar with.

Industry type in this study refers to the industry of the firm whose financial information is subject to materiality judgments. In this study, the industry type variable is conceptualized into the judgmental task by providing the subjects with the industry background in which the judgments are made. Since there is little evidence about industry type effects, the model of materiality judgments in this study does not describe the predicted direction of the expected effect of this variable on auditors' judgments. However, it can be expected that differences between industries may result in materiality thresholds in one type of industry differing from those in another type of industry.

Industry Specialization

There is evidence that auditors' personality characteristics affect materiality judgments of auditors (Estes & Reames 1988). In particular, auditors' experience is found to have a significant impact on the judgments (Messier 1983; Krogstad et al. 1984; Carpenter & Dirsmith 1992; Carpenter *et al.* 1994). Industry concentration is one dimension of auditors' experience.

Auditors are required to maintain an understanding of the client's business and industry, and are expected to recognize the effect of relevant changes in the industry of the client when making preliminary materiality judgments (ISA 320). Past studies show the relevance of industry in materiality judgments and the existence of significant differences across industries in a number of accounting-related aspects including inherent risks (e.g. Bedard & Wright 1997), fraud identification (e.g. Johnson *et al.* 1991), financial accounting errors (e.g. Bedard & Biggs 1991), and violation of accounting standards (e.g. O'Keefe, King & Giver 1994). It is suggested that different industries may require different materiality thresholds. The difference is expected to lead to differences in auditors' materiality thresholds across industries.

Industry specialization exists among auditors. This study has identified industry specialization as a variable that may have effects on auditors' judgments of materiality. There is evidence from past studies that auditors' industry specialization influences on auditors' judgments of materiality (Iselin & Iskandar 2000; Iskandar & Iselin 1999). As auditors require industry-specific knowledge through years of relevant audit experience in a particular industry they develop specialization of industry. Industry specialization is considered to be the determinant of auditors' industry expertise (Bonner & Lewis, 1990; Libby & Luft, 1993), which is expected to be an important component of overall auditor expertise (Craswell *et al.*, 1993, p. 4). This variable is believed to have contributed to the lack of consensus in the findings of previous research on materiality judgments. However, the effect of this variable on auditors' judgments has not been studied in the past. The question of how auditors' industry-specific knowledge acquired through industry specialization may influence materiality judgments has never been addressed. The objective of this study is to see if a difference in materiality judgments exists between industry specialists and industry non-specialists, and if it does to investigate the nature of the difference.

On the basis of auditors' industry specialization it is reasonable, therefore, to classify auditors into industry specialists and non-specialists. In this study, an industry specialist refers to the auditor who has acquired industry-specific knowledge (Bonner & Lewis, 1990) through the audit experience in a specific industry. Auditors who are specialists in one industry may not be specialists in other industries in which they do not have the required industry-specific knowledge. The acquisition of different types of industry knowledge is relevant in making an auditor an industry specialist or industry non-specialist with respect to a particular industry. Through industry specialization, auditors incorporates into their knowledge structure knowledge specific to the industry, auditors will apply the materiality standard (threshold) developed from their knowledge of the industry in which they specialize. This argument suggests that industry specialists are influenced by their industry knowledge when making materiality judgments.

Past studies on expert systems show that, among the financial experts, the decisions of industry portfolio selection are made on the basis of company templates contained in their memory structure (Bouwman, 1984). The memory structure of these experts is dominated by industrial schemata, which are used to distinguish between different types of company for equity portfolio selection (Cocks & Iselin, 1991 & 1993). These findings illustrate the relevance of industry standards in any judgment or decision-making involving industry. As materiality thresholds are likely be different between industries, it is argued that materiality judgments of auditors will also differ between different industry specialists.

The knowledge structure which auditors gain through their experience in the audit of a particular industry results in differences among them in terms of their expertise, depending on the type of industry they specialize in. Auditors are expected to have developed audit strategies according to their specialized experience in any particular industry (Moriarty & Barron, 1979). This study will therefore examine the potential effects of industry specialization on auditors' materiality judgments. The researcher believes that this is an original contribution toward the existing body of knowledge in this area. In this study, industry specialization is defined as the work concentration of auditors in a particular industry. Auditors who specialize in an industry are designated industry specialists and those who do not specialize in the industry are designated industry non-specialists. As there are many different types of industry, this study focuses only on specialization in two industries: the finance industry and the retail industry.

This study argues that materiality judgments of auditors will vary with auditors' industry specializations. Auditors are expected to be familiar with the materiality thresholds commonly used for judgments in the industry of their specialization. When an industry specialist makes a materiality judgment about a firm in another industry, they are expected to apply the thresholds of the industry in which they specialize. However, the same thresholds may not be appropriate for this other industry. When non-specialists make materiality judgments about a specific firm, their judgment is expected to vary significantly from the judgments made by appropriate industry specialists. The variation of industry specialization among the judges may result in a variation of materiality judgments. Hence, for materiality judgments of a firm in a particular industry, the variance of thresholds among all judges for the same firm is expected to be larger.

Consequently, auditors' industry specializations may have moderating effects on the relationships between industry type and materiality judgments, and between type of audit opinion and materiality judgments. This proposition is consistent with Libby's (1985) conclusion that interactions of environmental cues with the decision-maker's knowledge structure are found to be the key to the diagnostic hypotheses generated in analytical review. This argument suggests that industry specialization is a moderating variable in the industry type and materiality judgments relationship. The above discussion leads to the following propositions.

Proposition 2:

The materiality thresholds for finance industry firms from finance industry specialists will be significantly different from the materiality thresholds for retail industry firms from retail industry specialists.

Proposition 3:

The materiality thresholds for industry specialists in the industry in which they do not specialize will not be significantly different from the thresholds in the industry in which they do specialize.

RESEARCH METHODOLOGY

This study uses a judgmental experiment to capture individual judgments of auditors about the materiality of losses from a decline in the market value of land and buildings, given the relevant information and circumstances surrounding the judgments. The experimental approach provides a means of determining the different thresholds of materiality of items through subjects' separate judgments on cases involving different scenarios. The experiment adopts a 2x2x2 factorial design, where there are (i) 2 levels of industry type, (ii) 2 levels of auditors' industry specialization; and (ii) 2 levels of opinion threshold. Variables (i) and (iii) are 'within subjects' variables while variable (ii) is a 'between subjects' variable. Subjects are randomly allocated for between-subjects variables.

Operationalisation of Variables

The independent variables in this study are type of opinion threshold, industry specialization, and type of industry of firms being audited.

Type of Opinion Threshold

As discussed earlier, type of opinion threshold is represented by the threshold between unqualified audit opinions and 'except for' opinion, and between 'except for' opinion and adverse opinion.

Type of Industry

The industry variable has two levels, represented by the retail industry and the finance industry. These two industries are chosen for this experiment because they have different market risk, which is expected to lead to differences in materiality judgments. The finance industry has a higher market risk than the retail industry. The different levels of risk of these industries are reflected in their Statex beta factors, which measure the systematic market risk of individual industries. The higher the factor the higher is the market risk of the industry. The Risk Measurement Service (AGSM, 1995) reports the beta factor 0.76 for the retail industry and 1.11 for the finance industry. The beta factor for the finance industry appears to be higher than that for the retail industry. This means that the finance industry is considered more risky. Betas for all industries included in the report range from a minimum of 0.44 (for the miscellaneous service industry) to a maximum of 1.48 (for the gold industry).

The industry variable is conceptualized into the judgment task of the experiment. A hypothetical company is developed for each of the two industries. Each company represents an average size company of the industry. The background information of each hypothetical company supplied to participants includes a brief note about the company's profitability, growth and management, as well as its summarized financial statements, notably the profit and loss account and the balance sheet. The background information of the company provides participants with information regarding the environment within which the judgments for the industry are to be made. Subjects are required to make judgments of materiality in 12 cases within the context of each of the two industries under study. The cases are exactly the same between the industries except for the name of the industry and the summary financial statements.

The summarized financial statements consist of a summarized profit and loss statement and a summarized balance sheet. These statements are developed from the actual financial statements of all companies in the respective industries as listed in the Australian Stock Exchange for the year 1994. This means that each item in the financial statements of each

of the hypothetical companies represents the mean of the same item for all companies in the industry. Since the financial figures are industry means, the figures in part define the industries. By providing exactly the same cases and by using the mean financial figures for each industry, any possible confounding of industry type with different financial figures can be avoided. The mean industry figures used in this study essentially define the industries concerned.

Industry Specialization

In order to evaluate the effect of industry specialization on auditors' judgments of materiality, subjects are classified into retail specialists and finance specialists of equal number. Years/ months of industry experience is used as the measurement of industry specialization (Choo & Trotman 1991). Subjects are seniors, managers, or partners with a minimum of two years audit experience and one year audit experience in the retail or finance industry, and currently auditing in retail or finance but not in both industries. The application of these selection criteria classifies subjects into retail audit specialists and finance audit specialists.

Dependent Variables

The dependent variable of this study relates to auditors' judgments of materiality of the losses from a decline in the market value of land and buildings. The variable is materiality threshold magnitudes. This study uses the type of audit opinion to measure the level of materiality. As indicated above, three types of audit opinion incorporated in this study are: (a) an unqualified opinion; (b) an "except for" opinion; and (c) an adverse opinion. Subjects are required to choose the type of audit opinion they would issue if a proper accounting/disclosure treatment is not given by the management to the judgment item at each level of the percentage effect of the item on net profit as specified below. The management may regard the item as too immaterial to be recorded in the accounts or not material enough to be separately disclosed as a normal profit or loss. If auditors disagree with the management, they have to decide whether or not to qualify the audit report by issuing an "except for" opinion or an adverse opinion. Auditors' decisions on the type of audit opinion they would recommend depend on their judgments about the materiality of the item.

This research studies the three levels of audit opinion by investigating the thresholds between those levels. The thresholds are: (1) the threshold between 'an unqualified audit opinion' and 'an "except for" audit opinion'; and (2) the threshold between 'an "except for" audit opinion' and 'an adverse opinion'. The opinion thresholds are measured based on the percentage of the selected item, i.e. losses from a decline in the market value of land and building, on net profit after tax and before extraordinary items. The percentage of net profit is varied over 12 levels: 1%, 3%, 5%, 7%, 8%, 10%, 12%, 15%, 20%, 25%, 30% and 40%. The threshold for audit opinions is the percentage effect of the item on net profit when the type of audit opinion changes as described above. In this case, percentage effect of the item on net profit is not an independent variable. It is used to measure the opinion thresholds, which are the dependent variable.

Experimental Task

The research is conducted in an experimental setting. Subjects are required to perform an experimental task involving materiality judgments on cases contained in an experimental

instrument. Each subject is given the experimental instrument containing twenty-four cases involving different scenarios. Twelve cases require materiality judgments within the context of the retail industry and the other twelve cases require materiality judgments within the context of the finance industry. Each case deals with the loss from a decline in the market value of land and buildings and each represents a different scenario in terms of the percentage effect of the loss on net profit. The amount of the loss in each case varies in its absolute figure (before tax) and in its percentage of net profit. The calculation of the percentage effect of the item on net profit is based on the net profit after the deduction of income tax and before the inclusion of extraordinary items. The 12 cases are varied in the same manner for the retail industry and for the finance industry, along the different levels of the percentage effect of the item on net profit.

The loss from a decline in the market value of land and buildings is selected as the judgment item based on a number of criteria including the appropriateness of the nature of the item as a charge against the operating results, common for both industries, separate disclosure requirements as a line item or a footnote, and recording requirements. Hence, by application of the criteria, the selected item may receive all accounting/disclosure treatments to be tested in the experiment. This study focuses only on the loss and not on the gain from an increase in the market value of land and buildings. The evidence shows that there is no difference between decision models used for assessing the materiality of losses and those used for assessing the materiality of selected in a booklet.

Subjects

Eighty-four auditors from Big 6 and second tier audit firms in Australia participated in the experiment. They consist of 28 audit partners, 45 audit managers and 11 audit seniors. They have general audit experience ranging from 24 months to 300 months, with a mean of 93.06 months and they are fairly representative of both genders. Participants are classified into two groups. One group is comprised of 35 auditors who are retail specialists. This group represents 41% of the total participants. The other group is comprised of 51 auditors who are finance specialists, and represents 59% of the total participants. The participants' classification into retail specialists or finance specialists is based on their industry-specific experience in the respective industry. Auditors who are currently auditing the retail industry but not the finance industry but not the retail industry are classified as finance specialists.

The study has considered the need to control other related variables (including audit firm structure, audit firm size, and participant position) for their possible effects on auditors' materiality judgments. Questions on these variables are included in the last part of the experimental instrument. The information is collected in order to control for the effect of these variables on the results. Tests of correlation indicate no significant effect of each of these variables on audit opinion thresholds. Hence, a 3-way ANOVA is used for the analysis rather than ANCOVA.

RESULTS

Using a mixed 3-way factorial ANOVA to analyze the opinion thresholds, the study finds that the type of audit opinion threshold significantly affects the threshold judgments (F=55.60;

df=1,54; p=.000). The results also show that opinion thresholds are significantly affected by the interaction between the type of industry and the auditors' industry specialization (F=8.87; df=1,54; p=.004). The result suggests that as the type of opinion changes, the threshold (which is measured in terms of the percentage effect of the item on net profit) also changes. Hence, the magnitude of opinion thresholds differs significantly between one type and the other type.

The study finds that the mean materiality threshold for the "except for" audit opinion is 9.08% of the net profit and the mean for adverse opinion is 31.38%. The t-test for independent samples shows that, in each industry, the adverse opinion threshold is significantly higher than the "except for" opinion threshold at *p*=.000. This finding supports proposition 1, which suggests that auditors' materiality threshold for "except for" audit opinions will be less than that for adverse opinions.

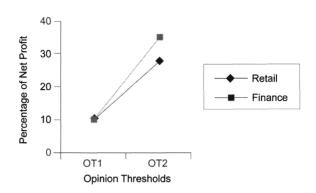
Although the result indicates that there is no significant main effect of industry type on opinion thresholds, further analyses are required in order to provide more evidence for Proposition 2, which suggests that the materiality thresholds for finance industry firms from finance industry specialists will be significantly different from the materiality thresholds for retail industry specialists. For this purpose, opinion thresholds of industry specialists in their respective industries are determined. Industry specialists' opinion thresholds are expected to reflect the actual thresholds for the industry because these thresholds are not confounded by the effect of industry non-specialists' judgments. Relevant summary statistics are summarized in Table 1.

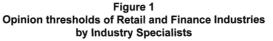
Opinion threshold type	Industry Specialist	Industry	
		Retail	Finance
"Except for"	Retail	9.52	9.56
	Finance	8.37	9.13
Adverse	Retail	28.82	25.62
	Finance	34.15	34.77

 Table 1

 Mean Opinion Thresholds for Industry Specialists in Retail and Finance Industries

Table 1 shows that the "except for" opinion threshold given by retail specialist in the retail industry is higher (9.52%) than the threshold in the finance industry given by finance specialist (9.13%) while the adverse opinion threshold for the retail industry by retail specialists is lower (28.82%) than the threshold for the finance industry by finance industry specialists (34.77%). Figure 1 below shows these opinion thresholds graphically.





The result shows that, for the "except for" opinion, the threshold used by retail specialists in the retail industry is higher than that used by finance specialists in the finance industry. The difference is in the predicted direction although it is not statically significant. This finding provides a partial support to the argument for the inter-industry difference (i.e. finance thresholds are lower). Hence, results for the "except for" opinion thresholds do not provide significant support for Proposition 2. For the adverse opinion, although the thresholds used by industry specialists in their respective industries are different but the difference is not in the predicted direction. Thus, the difference in the adverse opinion threshold is not consistent with the argument that the finance industry requires lower thresholds than the retail industry as a result of higher inherent risks. This result appears to be contradictory to the theory underlying industry differences, which predicts lower materiality thresholds in the finance industry as a result of higher risk and uncertainty. Paired comparisons of the difference between opinion thresholds of industry specialists in their respective industries in their respective industries, however, show that the difference is not significant.

To test Proposition 3, opinion thresholds of industry specialists in the industry in which they specialize and in the industry in which they do not specialize are examined. Proposition 3 suggests that materiality thresholds for industry specialists in the industry in which they do not specialize will not be significantly different from the thresholds in the industry in which they do specialize. Summary results are shown in Table 2.

Opinion Thresholds	Retail Specialists		Finance Specialists			
	Retail Industry	Finance Industry	Sig	Finance Industry	Retail Industry	Sig
Mean	17.01	16.17	.096	18.92	17.57	.003

 Table 2

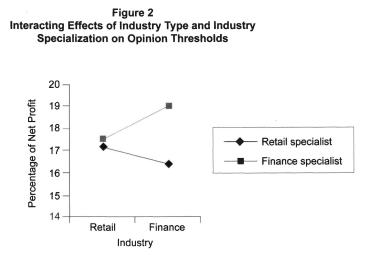
 Opinion Thresholds of Retail and Finance

 Specialists in the Retail and Finance Industries

The results show that opinion thresholds given by finance specialists for the finance industry are significantly different (p=.003) to those, which they give for the retail industry (i.e. the

industry in which they do not specialize). The difference for retail specialists is not significant as predicted by Proposition 3. Hence, the proposition is only partly supported.

As stated above, the ANOVA shows a significant interaction between industry specialization and industry type at p=.004. Table 2 shows the relevant means and presented graphically in Figure 3. Overall, retail specialists seem to apply lower opinion thresholds than finance specialists. This result contradicts the argument for Proposition 3, which predicts lower materiality thresholds in the finance industry because of its high risk and uncertainty. However, the difference in opinion thresholds between these two specialist groups in either industry is not significant (at p<.05). Thus, the results do not support Proposition 3.



CONCLUSION

This study has examined auditors' materiality judgments with respect to the issuance of audit opinion. Three propositions are developed and tested in an experimental study. The study finds that the "except for" opinion threshold is 9.08% and it is significantly lower than the adverse opinion threshold, which is 31.38%. Proposition 1 is therefore supported.

The study finds that the "except for" opinion threshold for the finance industry by the finance specialists is lower than that for the retail industry by retail specialists. The reverse is true for the adverse opinion threshold. The difference is as predicted except for the adverse opinion. This result partially supports proposition 2.

The study finds that finance specialists apply significantly higher thresholds in the finance industry than in the retail industry. Opinion thresholds for retail specialists in the retail industry are not significantly different from their thresholds in the finance industry. The "except for" opinion threshold is found is lower in the finance industry than in the retail industry. The results show that finance specialists apply significantly (p=.003) higher thresholds in the finance industry (i.e. the industry in which they specialize) than in the retail industry (i.e. the industry in which they specialists, however, do not use significantly different opinion thresholds in the retail industry from those they use in the finance industry. Proposition 3 is supported for opinion thresholds only among retail specialists.

indicating lower opinion thresholds in the retail industry than in the finance industry, seem to contradict the underlying theory, which suggests lower opinion thresholds in the finance industry due to risk and uncertainty within the industry.

This study has provided evidence of the effect of industry on auditors' materiality judgments, which differ between industries. However, the main effect of this variable is not significant. The study further finds that the effect of industry occurs in an interaction with industry specialization. Differences across industries are believed to have resulted in inconsistencies in auditors' judgments in the past. The researcher believes that an investigation into the effects of industry on materiality judgments is an original contribution of this study to the existing body of knowledge in this area. A serious consideration should be given to audit opinion thresholds for inclusion in the standards. Currently, the 1standard is silent on these thresholds. The findings indicate that the "except for" opinion threshold is significantly lower than the adverse opinion threshold. Although the choice between an "except for" opinion and an adverse opinion depends on the degree of materiality of the subject of the qualification (ISA 320), the standard does not provide definitive guidelines on the appropriate materiality thresholds for different types of audit opinion. Auditors have to apply their professional judgments as to the likely threshold that would be appropriate for these types of audit opinions.

The findings suggest the existence of industry effects on auditors' materiality judgments. The fact that each industry inherits a different level of risk, involves specific regulations and accounting policies, and faces certain accounting problems has resulted in inter-industry variations in materiality judgments. Auditors in practice recognize the significance of industry in the conduct of an audit. Inter-industry differences in materiality judgments indicate the need for specific consideration to be given to the industry factor in materiality guidelines. Hence, specific guidelines may be necessary for different industries or groups of similar industries.

Industry variable may consist of a number of related factors. In order to understand the effects of industry type in greater detail, further research into these factors making up the industry variable is necessary. Further investigation into this aspect will help auditors direct their focus to the significant dimension of an industry. Also, since this study examines the effects of only two industries, the retail and finance industries, the generalisability of the result is limited to only these two industries. Further research in other industry effects on materiality judgments. Further, the retail and finance industries should be studied with a greater number of subjects. In addition, it would be interesting to see comparative studies in other groups e.g. preparers and users of financial statements and auditors in other countries. Comparative studies between these groups, applying a similar research approach and examining the same independent variables, would provide another opportunity for future research.

BIBLIOGRAPHY

Australian Graduate School of Management (AGSM), "Risk Measurement Service," March, 1995.

Australian Society of Certified Practising Accountants and The Institute of Chartered Accountants in Australia, Statement of Accounting Standard AAS 5, "Materiality in Financial Statements," November 1986.

Australian Society of Certified Practising Accountants and The Institute of Chartered Accountants in Australia, Accounting Standard AASB 1031, "Materiality," December 1995.

Bedard, J. & S. Biggs, (1991), "The Effect of Domain-Specific Experience on Evaluation of Management and Representation in Analytical Procedures," Auditing: A Journal of Practice and Theory, Vol. 10, pp. 71-95.

Bedard, J. & A. Wright, (19940, The Functionality of Decision Heuristics: Reliance on Prior Audit Adjustments in Evidential Planning, Behavioural Research in Accounting, Vol. 6, Supplement, pp.62-89.

Bonner, S. E. and B. L. Lewis, (1990), "Determinants of Auditor Expertise," *Journal of Accounting Research*, Vol. 28, Supplement, pp. 1-20.

Bouwman, M. J., (1984), "Expert vs. Novice Decision Making in Accounting: A Summary," Accounting Organization and Society, Vol. 9, No. 2/4, pp. 325-327.

Carpenter, B. W. & M. W. Dirsmith, (1992), "Early Debt Extinguishment Transactions and Auditor Materiality Judgments: A Bounded Rationality Perspective," *Accounting, Organizations and Society*, Vol. 17, 709-739.

Carpenter, B. W., M. W. Dirsmith, and P. P. Gupta, (1994), "Materiality Judgments and Audit Firm Culture: Social-Behavioural and Political Perspectives," *Accounting Organizations and Society*, Vol. 19, No. 4/5, pp. 355-380.

Chewning, G., K. Panne, and S. Wheeler, (1989), "Auditor Reporting Decisions Involving Accounting Principle Changes: Some Evidence on Materiality Thresholds," *Journal of Accounting Research*, pp. 78-96

Malaysian Institute of Accountants, Malaysian Approved Standards on Auditing, ISA 320, Audit Materiality, 1997.

Choo, F. & K. Trotman, (1991), "The Relationship between Knowledge Structure and Judgments for Experienced and Inexperienced Auditors," Accounting Review, Vol. 66, pp. 464-485.

Cocks, N. J. and E. R. Iselin, (1991), "Schemata and Categories in The Corporate Knowledge Bases of Expert Portfolio Managers," The Griffith University Working Paper, pp. 1-10.

Cocks, N. J. and E. R. Iselin, (1993), "The Corporate Memory Structure of Expert Portfolio Managers: A Multi-Trial Free Recall Study," The Griffith University Working Paper, pp. 1-27.

Craswell, A. T., J. R. Francis, and S. L. Taylor, (1993), "The Audit Market and Evidence of Both a Brand Name (Big 8) Audit Fee Premium and Returns to Industry Specialization," Working Paper Series, The University of Sydney.

Estes, R. & D. D. Reames, (1988), "Effects of Personal Characteristics on Materiality Decisions: A Multivariate Analysis," Accounting and Business Research, Vol. 18, pp. 291-296.

Financial Accounting Standards Board, "An Analysis of Issues Related to Criteria for Determining Materiality," Discussion Memorandum, FASB, Stamford, Connecticut, 1975.

Financial Accounting Standards Board, Statement of Financial Accounting Concepts No. 2 (SFAC 2), FASB, "Qualitative Characteristics of Accounting Information," Stamford, Connecticut, May 1980.

Firth, M., (1979), "Consensus Views and Judgment Models in Materiality Decisions," Accounting, Organizations and Society, pp. 283-295.

Frishkoff, P. (1970), "An Empirical Investigation of The Concept of Materiality in Auditing," *Journal of Accounting Research*, pp. 116-129.

Iskandar T. M. and E. R. Iselin, (1998), "A Review of Materiality Research," Accounting Forum, Vol. 23, pp. 209-239.

Iskandar, T. M. and E. R. Iselin, (1999), "Auditors' Materiality Judgments: A Study Industry and Personality Effects," Accounting Research Journal, Vo. 12, No. 12, pp. 163-177.

Iselin, E. R. and T. M. Iskandar, (2000), "Auditors' Recognition and Disclosure Materiality Thresholds: Their Magnitude and The Effects of Industry," *British Accounting Review*, Vol. 32, pp. 289-309.

Jennings, M., D. C. Kneer and P. M. J. Reckers, (1987), "A Re-examination of the Court," Auditing: A Journal of Practice & Theory, Vol. 6, pp. 104-115.

Johnson, P. E., K. Jamal & R. G. Berryman, (1991), "Effects of Framing on Auditors' Decisions," Accounting, Organization and Society, Vol. 31, pp. 75-105.

Jordan, C., J. Henderson and G. Gordon, (1991), Materiality Guidelines for Changes in Accounting Principles, The Woman CPA, Summer, pp. 18-20.

Krogstad, J., R. Ettenson, and J. Shanteau, (1994), "Context and Experience in Auditors' Materiality Judgments." Auditing: A Journal of Practice and Theory, pp. 54-73.

Libby, R., (1985), "Availability and the Generation of Hypotheses in Analytical Review," *Journal of Accounting Research,* Vol. 23, No. 2, pp. 648-667.

Libby, R. and J. Luft, (1993), "Determinants of Judgment Performance in Accounting Settings: Ability, Knowledge, Motivation, and Environment," Accounting Organization and Society, Vol. 18, No. 5, pp. 425-450.

Malaysian Institute of Accountants, Malaysian Approved Standards on Auditing, ISA 320, Audit Materiality, 1997.

Malaysian Institute of Accountants, Malaysian Approved Standards on Auditing, ISA 700, The Auditor's Report on Financial Statement, 1997.

Mayper, A. G., (1982), "Consensus of Auditors' Materiality Judgments of Internal Accounting Control Weaknesses," *Journal of Accounting Research*, PT. II, p. 83.

Messier, W. F., Jr., (1983), "The Effect of Firm Type and Experience on Materiality/Disclosure Judgments," *Journal of Accounting Research*, pp. 611-618.

Moriarity, S., and F. Barron, (1979), "A Judgment Based Definition of Materiality," Supplement to *Journal of Accounting Research*, pp. 114-135.

Morris, M. H., W. D. Nichols, and J. W. Pattillo, (1984), "Capitalization of Interest, Materiality Judgment Divergence and Users' Information Needs," *Journal of Business Finance and Accounting*, pp. 114-135.

Morris, M. H., and W. D. Nichols, (1988), "Consistency Exceptions: Materiality Judgments and Audit Firm Structure," *The Accounting Review*, pp. 237-254.

O'Keefe, T., R. King & K. Giver, (1994), "Audit Fees, Industry Specialization, and Compliance with GAAS Reporting Standards," Auditing: A Journal of Practice and Theory, Vol. 13, pp. 41-55.

Pattillo, J. W., (1976), "The Concept of Materiality in Financial Reporting," Financial Executives Research Foundation, New York.

Steinbart, P. J., (1987), "Materiality: A Case Study Using Expert Systems," The Accounting Review, pp. 97-116.

Woolsey, S. M., (1954A), "Development of Criteria to Guide the Accountant in Judging Materiality," *Journal of Accountancy*, pp. 167-173.

Woolsey, S. M., (1954B), "Judging Materiality in Determining Requirements for Full Disclosure," *Journal of Accountancy*, pp. 745-750.

Woolsey, S. M., (1973), "Approach to Solving the Materiality Problem," Journal of Accountancy, pp. 47-50.