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UNDERREPORTING OF AUDIT TIME AND PREMATURE SIGN-OFF IN WESTERN EUROPE

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ABSTRACT

This research extends the examination of underreporting of audit time and premature sign-off of audit tests to Western Europe using an experimental case approach. The sample includes 200 auditors (30 partners and 170 managers) from four Big Six[1] firms located in Denmark, Ireland, Italy, the Netherlands, Spain, Sweden and the United Kingdom. The analysis confirms that the probability of both underreporting and premature sign-off exists in Western Europe, but only the former is relatively higher when the auditor has a history of problems meeting time budgets. Furthermore, the findings indicate that the propensity to underreport and prematurely sign-off varies by country and relates to the cultural constructs of Individualism and Uncertainty Avoidance. This creates difficulties for international auditing firms' presumption of worldwide standardisation and quality. The findings concerning underreporting and premature sign-off also provide additional considerations for proponents of international standards in accounting and auditing.

INTRODUCTION

Underreporting of audit time worked or premature sign-off on audit steps by members of an audit team may compromise the integrity of an audit and thus its usefulness to consumers. Research following Rhode's (1978) seminal study on premature sign-off confirms that auditors continue to underreport and/or prematurely sign-off (Raghunathan, 1991; Bernardi and Arnold, 1996; Reckers, Wheeler and Wong-On-Wing, 1997). Raghunathan (1991) found that about 58 per cent of the auditors in his study prematurely signed off at some point in their career. The situation may be worsening; Reckers et al. (1997) reported that 78 per cent of the surveyed auditors admitted to having prematurely signed off at least once during the prior year.

Rather than being indigenous only to the US, underreporting and premature sign-off could be compromising audit integrity on a worldwide scale (see international literature reviewed below). Our research is an initial step in a research stream to determine the international magnitude of the behavioural patterns of underreporting and premature sign-off, with a particular focus on the impact of country specific cultural characteristics on these behaviours.

Culture has been defined as a system of shared beliefs and values (Hofstede, 1980, 1991) that may not be the same for every member of the society but occur 'statistically more often in the same society' (1991, p. 112). We believe that Hofstede's cultural constructs of Individualism and Uncertainty Avoidance will associate with underreporting and premature sign-off. We would expect auditors from more individualistic countries to be influenced by their personal needs rather than relying on rules and procedures. Doupnik and Salter (1995) and Wingate (1997) found that countries with higher Uncertainty Avoidance scores had lower levels of accounting disclosures. From these studies, it could be argued that a reduced concern for the level of precision and disclosure might also be reflected in the tendency of auditors from certain cultures to underreport and/or prematurely sign-off.

THEORY DEVELOPMENT

International Research

Our literature review includes 22 prior articles on underreporting and/or premature sign-off (**Table 1**); five of these have been published since the lead and second authors' original article (Bernardi and Arnold, 1996). Of these articles, only five examine samples from countries other than the US; these five articles are the most recent and appear to replicate in part prior studies that used US auditors (e.g. Otley and Pierce, 1996). One of the multi-country studies (Schultz, Johnson, Morris and Dyrnes, 1993) suppports the claim by Hofstede, Neuijen, Ohayv and Sanders (1990) that national culture dominates organisational culture in matters involving value judgements. This result suggests that multi-national companies wishing to achieve similar levels of reliability across divisions located in different countries need to implement different control systems.

Of the 22 prior articles, only one, Bernardi and Arnold (1996), examined both underreporting and premature sign-off as a spectrum of options. These authors found that tight budgets and auditors' history of having problems meeting time budgets influenced their decision process. We believe that Schultz et al.'s (1993) results provide the justification for examining differences in underreporting and premature sign-off across countries using a similar methodology to that in Bernardi and Arnold.

Table 1: Research of Underreporting and Sign-off

Author(s)	Year	Area Reported on and Sample			Country	(n)	Factors Manipulated
		Under-report	Sign-off	Jointly			
Rhode	1978	All			US	1,526	None
Lightner	1981	All			US	841	None
Aldeman & Dietrick	1982		All		US	274	None
Kelley & Seiler	1982	All			US	91	None
Lightner et al.	1982	All			US	1,016	None
Lightner et al.	1983	All			US	972	None
Margheim & Pany	1986	AICPA	AICPA		US	170	QC and Efficiency
Cook & Kelley	1988	All	All		US	73	None
Pany et al.	1989	Student	Student		US	107	QC and Overtime Pay
Kelley & Margheim	1990	Match	Match		US	88	None
McNair	1991	Staff	Staff		US	150	None
Cook & Kelley	1991	Seniors, Staff, & Partners			New Zealand	123	None
Raghunatham	1991		All		US	409	None
Ponemon	1992	Staff			US	193	Time and Pressure

Shapeero & Kellough	1999	Staff			US	112	Motivation, status, ethics, & sanctions
Schultz et al.	1993	Managers & Staff			France, Norway & US	145	Questionable acts and Hofstede's constructs
Otley & Pierce	1995	Seniors			Ireland	257	Leadership behaviour
Bernardi & Arnold	1996			Managers & Seniors	US		Budget & History
Otley & Pierce	1996	Seniors			Ireland	260	Budget Tightness
Willett & Page	1996		Staff/Sens		UK	112	Pressure & Attitude
Reckers et al.	1997		Seniors		US	119	Employment History
Gist & Davidson	1999	All levels			US	119	Various Behaviours
Louwers & Strawser	2000	Students			US	155	Policies & Findings
Current Research	**2001**			**Part/Mgrs**	**Europe**	**200**	**Employment History**

AICPA	Sample from AICPA members	Underreport	Underreporting evaluated alone
All	All levels of Big Eight	Sign-off	Sign-off evaluated alone
Match	Staff matched with seniors	Jointly	Underreporting and Sign-off evaluated jointly
Mgr/Snr	Big Six managers & seniors		
Part/Mgr	Big Six partners & managers from Europe		

Updated from Bernardi and Arnold (1996, p. 3)

Cook and Kelley (1991, p. 25) found that 'time budget pressures are as much a problem in New Zealand as in the United States'. Cook and Kelley (p. 26) found that in New Zealand the reasons for tight budgets were primarily associated with fee pressure (50.4 per cent) and poor planning (26.8 per cent). Using a sample of auditors from the UK, Willett and Page (1996) found that the reasons for considering irregular methods, which could lead to premature sign-off, include budget pressure (60.5 per cent), boring work (30.3 per cent) and unimportant work (41.1 per cent). Comparing the data from Kelley and Margheim (1990) and Cook and Kelley (1991), Otley and Pierce (1996) found that dysfunctional behaviours caused by tight budgets had dramatically increased, suggesting that culture may be a contributory factor to this difference.

Reporting Decision Process

Even though some might not consider underreporting to be unethical (since it may occur due to an auditor's inefficiency), Baack, Fogliasso and Harris (2000) believed that the reinforcing pattern of such behaviours over time leads to a reduction in one's sensitivity to ethical issues. This decay results in a gradual increase in the magnitude of what one considers a minor deviation (i.e. underreporting versus premature sign-off).

While underreporting may occur because of an auditor's inefficiency, underreporting also causes schedulers to input erroneous data into budget models (Louwers and Strawser, 2000). Further compounding of the problem occurs when those planning audits schedule even fewer hours because they want to increase audit efficiency (McDaniel, 1990) and/or because of client fee pressures (Houston, 1999). Consequently, underreporting increases when time budgets become more stringent and less realistic and more auditors fail to meet them (Louwers and Strawser, 2000). Any increase in underreporting exacerbates problems such as underbilling current audits, underbidding potential audits, scheduling problems and inaccurate staff evaluations (Louwers and Strawser, 2000).

If the cause of the time budget problem does not relate to an auditor's inefficiency but results from inadequate time allowed for the task, then underreporting constitutes falsifying a report. Baack et al.'s (2000) argument that small transgressions lead to larger transgressions implies that premature sign-off will increase (Raghunathan, 1991; Reckers et al., 1997). This increase results from more auditors being unable to meet their time budgets and facing the decision process in **Figure 1**.

Underreporting and premature sign-off are part of an interrelated decision process when both are the result of tight time budgets (see **Figure 1**).[2] While most prior research treats underreporting and premature sign-off as independent decisions, some studies examine the absolute level of the behaviours not specifically in response to tight time budgets. While Bernardi and Arnold (1996) study underreporting and premature sign-off concurrently, their study used a restricted measure for premature sign-off. This study extended the interrelationship by providing a fuller set of alternatives, including multiple options for underreporting and premature sign-off.

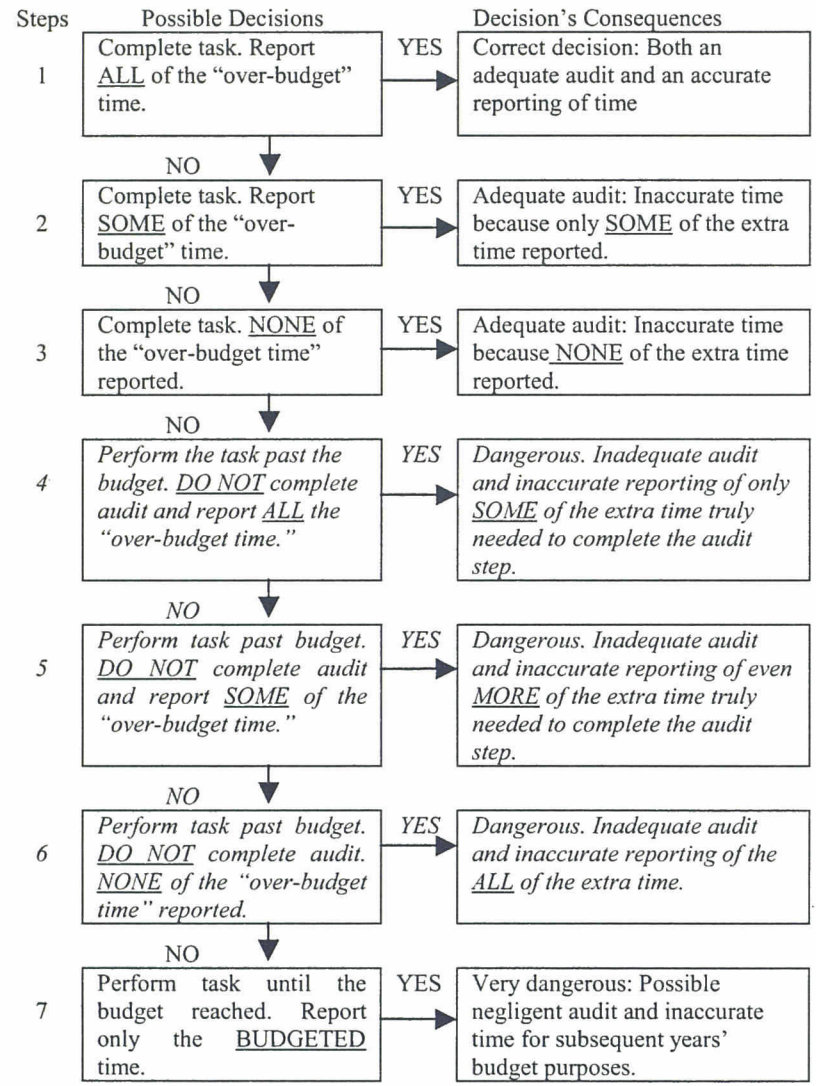
Table 2: Time Budget Behaviours and Penalties

	Number Who Admitted		
Enforced Penalty by Firms	No	Yes	% Yes
None			
1. Shift time between tasks	31	119	79.3
2. Take work home – not charged	49	101	67.3
3. Underreport	56	94	62.7
Counsel			
4. Accept weak client explanation	60	90	60.0
5. Shift time from billable to office	69	81	54.0
6. Shift time between clients	78	72	48.0
7. Did not research technical issue	82	68	45.3
8. Did not pursue questionable items	85	65	43.3
Dismissal			
9. Superficial review	97	53	35.3
10. Premature sign-off	119	31	20.7

McNair's sample was 150 staff accountants. We combined the frequencies for those who indicated they Rarely or Frequently resorted to the indicated behaviour.

Adapted from McNair (1991)

Figure 1: Cascaded Decision Logic For Reporting Over-Budget Time



Note: Steps 4 to 6 (italicised) added to the Bernardi and Arnold's (1996, p. 9) model.

Table 2, which adapts McNair's (1991) data, supports the decision process depicted in **Figure 1**. The data indicate that a decreasing percentage of auditors resort to various dysfunctional behaviours as the magnitude of the offence becomes greater and possible censure increases. On average, about 70 per cent of the auditors in McNair's study underreported at some point in their career (actions 1 to 3 under None). Approximately 50 per cent of these auditors resorted to behaviours that could have resulted in counselling by their employer (actions 4 to 8 under Counsel). Interestingly, the practice of shifting time between clients warrants only counselling compared to the behaviours under dismissal. Finally, only 28 per cent of these auditors resorted to superficial reviews or premature sign-off to meet their time budgets (actions 9 and 10 under Dismissal). Esmond-Kiger (2000, p. 30) adapted McNair's data into a 'Reporting Decision Model' that resembles the ideas in **Figure 1**.

Prior Time Budget Problems

Because an auditor's ability to complete the tasks within the allotted time is critical to the efficiency of an audit, failure to meet time budget limitations without a superior's support may negatively impact upon an auditor's future in public accounting (Cook and Kelley, 1988; Kaplan and Reckers, 1993). Bernardi and Arnold (1996) found that auditors who have a history of time budget problems are more likely to underreport or prematurely sign-off. The ability to meet time budgets is an important consideration in the promotion process in the US (Kaplan and Reckers, 1993; Louwers and Strawser, 2000) and in European countries (Big Six, 2001). Our first hypothesis mirrors Bernardi and Arnold (1996) using a sample from Western Europe.[3]

H1A: The probability of underreporting will be higher (lower) for auditors who have (do not have) a history of problems meeting time budgets.

H1B: The probability of premature sign-off will be higher (lower) for auditors who have (do not have) a history of problems meeting time budgets.

Internationalisation of Auditing Firms

The largest public accounting firms suggest in their marketing campaigns that they produce consistent audit services throughout the world. For instance, the Big Five's websites include statements such as: 'Seamless service across industry and national borders' (KPMG); 'We act with one vision, without borders' (Andersen); 'Our people listen in over 100 languages' (Deloitte and Touche); 'Our global research means we have the resources to serve any client, anywhere in the world' (Ernst & Young); and 'Wherever your company operates, you will find us ready to help you' (PwC). However, these statements fail to consider the effect of the audit staff's country-based culture (Hofstede, 1980, 1991) upon the firm's practice in different countries. If differences in underreporting and/or premature sign-off exist among countries, it would call into question the application and effectiveness of a common set of prohibitions against underreporting and/or premature sign-off.

An Overview of Hofstede's Cultural Constructs

Culture and institutional factors intertwine to form accounting systems (Gray, 1988; Doupnik and Salter, 1995). Collins and Bloom (1997) believed that the development of accounting systems is a function of culture. Soeters and Schreuder (1988) posited that culture may also be a factor in auditors' behaviour.

Hofstede (1991, p. 112) defined culture as a system of shared values and beliefs that represents a 'set of likely reactions of citizens with a common mental programming. [These] reactions need not be found within the same persons, but only statistically more often in the same society.' Based on his extensive (1980) survey – covering 53 countries – of over 100,000 managers from a larger multi-national corporation, he identified (1984, pp. 83–84) Individualism, Power Distance, Uncertainty Avoidance and Masculinity/Femininity as the four constructs of a country's culture:

> Individualism versus Collectivism: Individualism stands for a preference for a loosely knit social framework in society wherein individuals are supposed to take care of themselves and their immediate families only. The fundamental issue addressed by this dimension is the degree of interdependence a society maintains among individuals.

> Large versus Small Power Distance: Power distance is the extent to which members of a society accept that power in institutions and organizations is distributed unequally. People in Large Power Distance societies accept a hierarchical order in which everybody has a place, which needs no further justification. The fundamental issue addressed by this dimension is how society handles inequalities among people when they occur.
> Strong versus Weak Uncertainty Avoidance: Uncertainty Avoidance is the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. This feeling leads them to beliefs promising certainty and to maintaining institutions protecting conformity. Strong Uncertainty Avoidance societies maintain rigid codes of belief and behaviour and are intolerant towards deviant persons and ideas. Weak Uncertainty Avoidance societies maintain a more relaxed atmosphere in which practice counts more than principles and deviance is more easily tolerated. The fundamental issue addressed by this dimension is how a society reacts to the fact that time only runs one way and that the future is unknown: whether it tries to control the future or let it happen.
> Masculinity versus Femininity: Masculinity stands for a preference in society for achievement, heroism, assertiveness, and material success. Its opposite, Femininity, stands for a preference for relationships, modesty, caring for the weak, and the quality of life.

His research allowed him to assemble a 'score' for each of the four constructs within a given country. These scores represented, on a relative basis, 'the most likely response of their society' (p. 112). While cultural constructs cannot predict an individual's reactions, they can provide an indication of the probable average response of individuals within a country for any given decision or action.

Gray (1988) introduced two-dimensional frames that combined his accounting values of professionalism, uniformity, conservatism and secrecy with Hofstede's cultural areas. Professionalism and flexibility in accounting values were associated with the Anglo and Nordic countries; uniformity and a movement towards statutory control were associated with the more developed Latin countries. Gray expected

optimism and transparency to be associated with the Anglo and Nordic countries and conservatism and secrecy to be associated with the developed Latin countries.

Although Cohen, Pant and Sharp (1995) suggested that it is improper to use a single construct in Hofstede's model, other research limits the application of Hofstede's constructs. For instance, Wingate (1997) found that financial statement disclosures are negatively associated with Uncertainty Avoidance, while Bavishi (1991) found that they are positively associated with Individualism. Salter and Niswander (1995) noted that Uncertainty Avoidance predicts Gray's professionalism, uniformity, conservatism and secrecy about 80 per cent of the time, and that 'the other culture-based variables do not appear to be as closely related to accounting values as anticipated by Gray' (p. 391).

There are some criticisms of Hofstede's study on culture. Several authors have criticised the continued use of the study given its age and some studies indicate that the values attributed to Hofstede's dimensions may not be stable over time (Schultz et al., 1993; Thorne 1999). Hampden-Turner and Trompenaars (1993) (hereafter referred to as HTT) extended Hofstede's work to propose another variable, universalism/pluralism, which suggests situational specificity of culture.

Some have suggested that HTT (1993) constructs provide an updated version of culture. For the most part, HTT used a forced-choice format; participants had to decide which of two statements was closest to how they feel. Indeed, several of HTT's constructs appear to measure locus of control (Rotter, 1966) rather than culture. Additionally, countries appear in some of HTT's constructs but not in others; this limits their usefulness. Also, while Hofstede's data represents the responses of IBM managers, HTT's (1993, p. 1–2) constructs were derived from a smaller sample than Hofstede's (30,000 versus 100,000). Another problem is that managers make up only 75 per cent of HTT's sample; the other 25 per cent includes typists, stenographers and secretaries.

Hofstede's work in the area of culture is the largest undertaken to date and is the most widely known and used set of cross-cultural variables. Accordingly, the research will centre on Hofstede's dimensions of culture to measure the impacts of the collective programming of the mind in determining different reactions to a similar audit scenario.

Uncertainty Avoidance

Uncertainty Avoidance measures an individual's ability to cope with uncertainty (Hofstede, 1980). Hofstede calculated this dimension by using three questions that capture rule orientation, employment stability and stress (pp. 161–162). He suggested (p. 153) that organisations attempt to reduce the range of outcomes through technology, rules and rituals in order to minimise future uncertainties. Using Jeurissen and Van Luijk's (1998) 'scores of ethical business conduct', we found that as Uncertainty Avoidance increases, ethical behaviour decreases in Western Europe.

These researchers also examined the relationships among Hofstede's cultural constructs and Au's data (1999) for Western Europe. This analysis indicates that Uncertainty Avoidance associates with Au's pride in work. The more pride in work increases, the greater is the likelihood that an auditor will work to complete the task regardless of the conditions (i.e. the less likely the auditor will be to prematurely sign-off); however, this does not imply that the auditor will report all of the time spent (i.e. unknown effect on underreporting). Because beliefs about one's job are central to Uncertainty Avoidance (Hofstede, 1980, p. 164), it is hypothesised that individuals are more likely to underreport but less likely to prematurely sign-off in high Uncertainty Avoidance societies. While underreporting has no disciplinary consequences, premature sign-off could result in termination (McNair, 1991).

H2A: As Uncertainty Avoidance increases, the average response for underreporting will increase.

H2B: As Uncertainty Avoidance increases, the average response for premature sign-off will decrease.

Individualism

Individualism describes the relationship between the individual and the collectivity within a society (Hofstede, 1980, p. 213). Collective societies believe that each member of the society is better off by serving the public. In individualistic countries, there is a greater practice of self-promotion. Likewise, as concerns about taking care of one's own needs increase, auditors from individualistic countries give a lower priority to others' needs.

Arnold, Bernardi and Neidermeyer (1999a) found that, as a country's individualism increases, the average probability of doing more audit work decreases. Arnold et al.'s finding indicates that auditors from more individualistic countries consider their personal needs rather than their firm's and/or the public's needs if they have problems meeting time budgets. Consequently, we believe that auditors from highly individualistic societies will be more likely to prematurely sign-off but not to underreport.

H3A: As Individualism increases, the average response for under-reporting will decrease.

H3B: As Individualism increases, the average response for premature sign-off will increase.

SUBJECTS AND MEASURES

Sample Selection

A review of the staff levels that participated in prior research indicates that the majority of studies used samples that included all staff levels. However, when examining the European samples, Schultz et al.'s (1993) study involved audit managers who were from different countries and Otley and Pierce's study (1996) used audit seniors for their research. However, the Otley and Pierce data suggest that a significant portion of the subjects were very experienced seniors (3.5 years of audit experience with a standard deviation of 1.4 years) or managers.[4] Consequently, we decided to use managers and partners.

As in our research, most of the studies in **Table 1** used a survey to gather their data. The earlier studies identified in this table asked participants to estimate the frequency of underreporting or premature sign-off, but did not manipulate the conditions. Early manipulations (Margheim and Pany, 1986; Pany, Pourciau and Margheim, 1989) focused on quality control and overtime pay. Ponemon (1992) introduced time pressure as a research manipulation. Subsequently, time pressure, tight budgets and auditor history manipulations are included in most research designs.

Nobes (1998) believed that prior research in international accounting double-counted the effects of factors on the development of accounting systems. Specifically, he maintained that culture may only be a valid

indicator for countries without a recent history of colonialism and suggested that it takes decades for a country's indigenous culture to overcome its colonial inheritance. Nobes proposed that culture may only influence the development of accounting systems in what he terms culturally self-sufficient countries. We decided to focus our study on Western Europe because Nobes (1998, p. 187) indicated that Western European countries are probably culturally self-sufficient.

European countries provide other contrasts because they historically used either debt or equity financing. For instance, German firms primarily use debt financing and firms in the UK rely more heavily upon the use of equity financing, which implies different disclosure requirements. We also used each country's gross domestic product (GDP) and market capitalisation (MC) since Nobes (1998) suggested that these factors (see **Table 3**) might distinguish between financing markets.

In selecting our sample of countries, we considered the cultural diversity each country brought to the sample (see **Figure 2**). When evaluating cultural diversity, we used Hofstede's (1980) caution that the range of scores for a construct should be at least 20 as a guideline. To provide this contrast, we identified a group of countries with (1) a sufficient range of scores for Individualism and Uncertainty Avoidance, and (2) significant gross domestic products and market capitalisation.

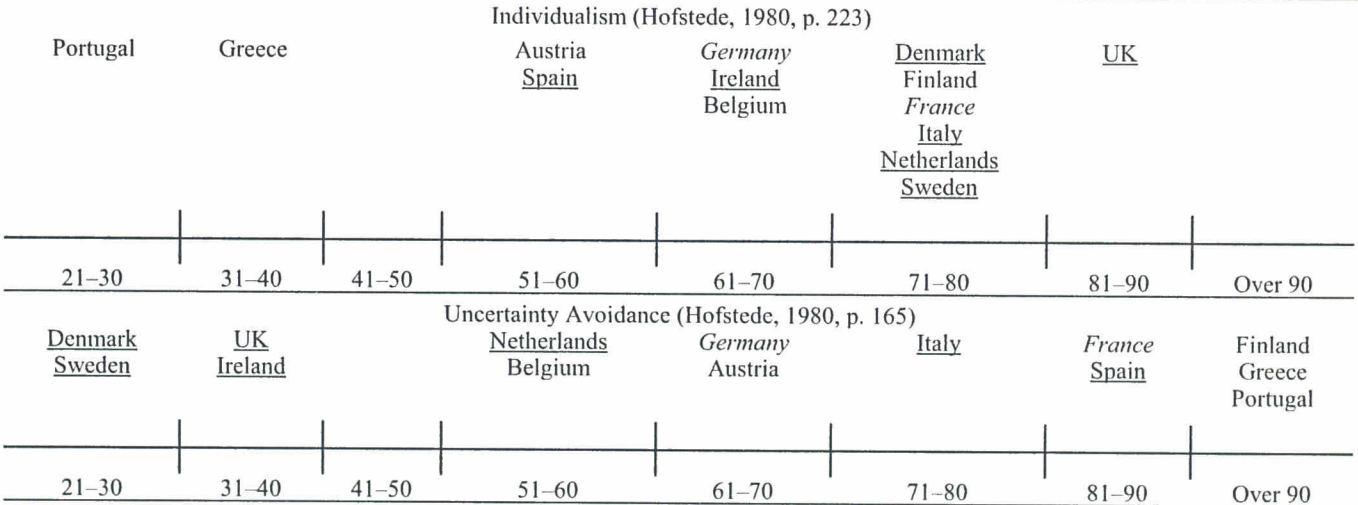
Table 3: Gross Domestic Product and Market Capitalisation by Country

Country	Current Sample	Gross Domestic Product	Market Capitalisation
UK	Yes	1,152.1	1,740,246
Germany	Asked/No	2,364.6	670,997
France	Asked/NU	1,533.6	591,123
Netherlands	Yes	402.6	378,721
Italy	Yes	1,140.5	258,160
Sweden	Yes	227.3	247,217
Spain	Yes	563.2	242,779
Ireland	Yes	62.0	75,226
Denmark	Yes	168.9	71,688
Belgium	No	268.6	119,831
Finland	No	119.1	63,708
Austria	No	226.5	33,953
Portugal	No	110.9	24,660
Greece	No	120.0	24,178
US	No	7,433.5	8,484,433
All Europe		8,242.5	4,505,449
European Asked		7,614.8	4,302,157
Seven in Sample		3,716.6	3,040,037

Yes – Part of final sample
Asked/NU – Sampled but not used
No – Not asked
Asked/No – Declined to participate

In billions of dollars

Figure 2: A Comparison of Individualism and Uncertainty Avoidance Indexes among European Union Countries



Underlined countries are part of this research. *Italicised countries*: *German* firms declined to participate. *French* sample removed due to significant experience differences of the respondents.

For example, while Finland, Greece and Portugal would expand the ranges of both Individualism and Uncertainty Avoidance (see **Figure 2**), these countries are at the low end of MC and GDP (see **Table 3**). Additionally, the size and number of offices in these countries limit their potential participation in this type of research. We did not ask firms from Austria and Belgium to participate because we believed we had sufficient coverage in their ranges for both cultural constructs (see **Figure 2**). Hofstede (1980, p. 12) maintained that in older countries there are:

> [S]trong forces towards further integration: (usually) one dominant national language, common mass media, a national education system, a national army, a national political system, national representation in sports events with a strong symbolic and emotional appeal, a national market for certain skills, products, and services.

However, Hofstede also warned that there is a growing tendency in the twentieth century for many groups to seek a degree of recognition for their identity and in many cases independence. One of the examples he cited is the Belgian Flemish. Finally, while Ireland is also at the lower end of MC and GDP, Irish accounting standards mirror those in the UK. Therefore, Ireland may provide a behavioural contrast to the UK (Soeters and Schreuder, 1988).

Of the firms we contacted, individuals from Denmark, France, Germany, Ireland, Italy, the Netherlands, Spain, Sweden and the UK indicated their firms' interest in our study. Had all nine of the countries participated, their combined GDP would be about the same as the US ($7,614.8 versus $7,433.5 billion). Their combined MC would be about half that of the US ($4,302,157 versus $8,484,433 billion).

Unfortunately, just prior to starting the sampling, individuals representing the German firms told us that their firms could not participate. In the final analysis, we did not include the participants from France because all but one of the 19 French participants were seniors, and the participants from the other countries were managers and partners. Our actual sample includes seven countries with a combined gross domestic product about half that of the US ($3,716.6 versus $7,433.5 billion). The combined market capitalisation of these seven countries is about one third that of the US ($3,040,037 versus $8,484,433 billion). Our sample should provide insights into the

underreporting and/or premature sign-off behaviours for a group of countries whose economic indicators demonstrate their importance.

We used Big Six firms for three reasons. First, we believe that departing from the established research pattern of using multi-national audit firms would destroy the comparability of our research with the findings of Bernardi and Arnold (1996). Second, Big Six firms audit a large percentage of multi-national companies and rarely ask local firms for assistance on an audit (Big Six, 2001). Third, research documents a reputation effect, which includes paying a premium to Big Six firms for similar audit work (Johnson and Lys, 1990; Allen, 1994). **Table 4** shows the participation, average experience and Hofstede's constructs for the seven Western European countries in our sample.

Table 4: Demographic Data

Country	Individualism	Uncertainty Avoidance	Sample Size	Average Experience
Denmark	74	23	28	11.6
Ireland	70	35	25	10.8
Italy	76	75	47	10.9
Netherlands	80	53	21	9.4
Spain	51	86	16	8.6
Sweden	71	29	26	10.4
UK	89	35	37	9.3
Overall	51–89	23–86	200	10.3

Individualism & Uncertainty Avoidance	Hofstede's Scores
Average Experience	Number of years of audit experience

Audit Scenario and Questionnaire

As this is an initial step in expanding the research in underreporting of time and premature sign-off outside the US, our objective was to maintain comparability with prior research. Consequently, our study uses an auditing scenario-based questionnaire developed by Bernardi and Arnold (1996). Their study uses a 2 X 2 design that examines time budget problems both for the individual auditor and on the full audit. Their strongest contrasts between auditors with prior problems meeting time budgets and auditors without this problem were for those scenarios in which the full audit was over the time budget.

While their sample includes 494 auditors from the US, we initially anticipated for the current research a sample of only approximately 250 auditors from nine countries. Therefore, we decided to use for our test instrument only the scenario where the full audit was over the time budget and then manipulate merely the individual auditor's history of time budget problems.

Bernardi and Arnold (1996) studied the underreporting and premature sign-off choices available to auditors; however, we believe their model is incomplete (see **Figure 1**). Although the choices for underreporting time were adequate, having only one choice for premature sign-off was too harsh. Our proposed model adds three additional choices (Steps 4 through 6 in **Figure 1**) to Bernardi and Arnold's (1996) model. The questionnaire includes a set of instructions and the audit scenario (see **Appendix**). After providing the background information, the instrument used in the current research asked the subjects to predict the probability that the auditor will do each of the seven choices identified in **Figure 1**, requiring that the sum of the probabilities equals 100 per cent. Half of the participants received a scenario in which the auditor HAD a reputation for having frequent problems meeting time budgets. The other half of the participants received an identical scenario except that it stated the auditor in question DID NOT HAVE a problem meeting time budgets. Each subject completed only one version of the scenario. This approach prevented the participants from comparing their probability estimates for the two auditor types; any comparison would ensure that the auditor with prior problems always received different probability estimates.

We sent the scenario and questionnaire to the contact person (usually the director of human resources or office managing partner) for each firm in the seven countries. We asked these individuals to evaluate the study materials for reasonableness. We also asked auditors from the

participating countries who were on exchange programs in their firms' New York City offices to read the questionnaire and determine whether the issues examined were meaningful in their home country. All of these individuals said the questionnaire was clear and that the issues of underreporting and premature sign-off were valid issues.

Asking participants to report on unethical behaviour presents its own set of problems. Subjects may not respond to the questions or they may answer the questions in a way that avoids reporting unacceptable behaviour (Buchman and Tracey, 1982). A common solution to reduce this bias is to word questions in the third person rather than in the first person. Participants may say that they are honest but that others are not (Lampe and Finn, 1992), which suggests 'I would not sin, but other auditors would' (Bernardi and Arnold, 1996, p. 8). Louwers and Strawser (2000) found that first person questions always reflect more hours reported than third person questions.

Research indicates that when discussing ethical issues, subjects often provide more representative answers (i.e. closer to their own actions) when asked to predict what others might do (Rest, 1986; Ponemon and Gabhart, 1993). Marks and Miller's (1987) and Ross, Greene and House's (1977) findings on the False Consensus Effect and McDonald and Ho's (1996) research in an accounting context on Social Desirability Bias support this phenomenon.

Procedures

We asked each office's contact person to determine whether we should present the scenario (see **Appendix**) and the background questionnaires in the country's language. Representatives from Italy and Spain asked that we use their country's language. For these two countries, one person translated the instrument into that country's language. A second person then back-translated it to ensure that the initial translation correctly reflected the exact intent of the survey. These individuals were all auditors with Big Six firms who were native speakers of either Italian or Spanish.

The lead author visited each participating office and explained the questionnaire to the office's contact person. We asked each contact person to distribute the surveys randomly to managers, senior managers and partners, collect the completed questionnaires and return them to

us. We requested that the contact person exclude anyone who had either been on an extended assignment outside his/her country or was not a native of the country.

We also included a background questionnaire as part of the survey instrument. This questionnaire requested information on staff level, experience, age, gender and nationality. Part of the experience response included a question to determine whether the participant had worked at an office outside their country for a year or more. The purpose of this question was to ensure that the sample from each country represented the culture in that country. We removed three auditors who had participated in extended exchange programs outside their country from the sample.

Hofstede's Constructs

Relying upon the statistical outcomes of Hofstede's cultural construct findings (1980) for the countries in our sample, country specific Individualism scores range from a low of 51 for Spain to a high of 80 for the Netherlands (see **Figure 2**). Uncertainty Avoidance scores range from a low of 23 for Denmark to a high of 86 for Spain. Because Hofstede's cultural constructs represent the 'the most likely response of their society' (p. 112), hypotheses two and three use the average probability of doing more work and reporting all, some or none of this additional time for each country. This procedure produces seven unique estimates for each of the choices for completing the audit and reporting the additional time (see **Appendix**).

ANALYSIS

Overview of Underreporting and Premature Sign-Off

A review of the individual responses reveals that only seven of the 200 participants (3.5 per cent) believed the auditor will report all of the additional time (report a 100 per cent likelihood for Choice 1). Another 47 participants (23.5 per cent) believed that only underreporting will occur (100 per cent to Choices 2 and/or 3). These 54 participants believed the auditor would not resort to premature sign-off (report zero likelihood for Choices 4 to 7). This implies that, when faced with an over budget situation, there is only a 27.0 per cent likelihood (3.5 per cent + 23.5 per cent) that premature sign-off will not occur. Our 73.0 per cent rate (100 per cent – 27.0 per cent) for some level of premature sign-off is close to Reckers et al.'s (1997) 78 per cent rate.

Table 5: Comparison of Time Budget Manipulation

	Ideal	Underreporting		Premature Sign-Off				
	Complete task & report			Do not complete task & report				
Choice	All	Some	None	All	Some	None	Budget	
(number)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(N)
Denmark								
No Problem	32.8	38.7	10.0	4.7	7.2	4.4	2.2	16
Problems	24.3	38.6	18.6	7.8	5.0	4.3	1.4	12
Ireland								
No Problem	40.7	27.9	10.0	7.9	7.1	4.3	2.1	14
Problems	13.2	31.8	22.7	7.7	9.6	7.3	7.7	11
Italy								
No Problem	18.2	26.6	27.0	2.0	5.2	6.0	15.0	22
Problems	16.1	41.8	19.5	3.0	5.8	6.4	7.4	25
Netherlands								
No Problem	37.4	28.4	14.5	0.8	8.1	6.0	4.8	13
Problems	14.4	36.9	22.5	4.4	8.1	10.0	3.7	8
Spain								
No Problem	15	30.6	41.1	2.2	4.5	4.4	2.2	9
Problems	25	39.3	29.3	0.0	0.0	1.4	5.0	7
Sweden								
No Problem	20.4	29.0	7.5	3.7	10.5	7.4	21.5	11
Problems	18.3	30.9	32.0	4.2	5.7	5.3	3.6	15
UK								
No Problem	21.5	30.0	15.6	6.8	13.8	7.0	5.3	17
Problems	12.0	33.8	20.0	4.7	11.3	10.7	7.5	20
Overall								
No Problem	26.5	30.1	17.6	4.1	8.1	5.7	7.9	102
Problems	16.9	36.4	22.6	4.6	7.0	6.9	5.6	98
Combined	21.7	33.2	20.2	4.4	7.5	6.3	6.7	200

Data expressed as a percentage except for sample sizes.
No Problems No prior time budget problems.
Problems Prior time budget problems.

Table 5 shows the average responses by country for underreporting and premature sign-off for Western Europe. While we just noted that there is a 73.0 per cent expectation that some level of premature sign-off will occur, **Table 5** reports a 24.9 per cent (sum of 4.4 per cent + 7.5 per cent + 6.3 per cent + 6.7 per cent) likelihood of premature sign-off. The 73 per cent reflects the portion of our 200 participants who believed premature sign-off will occur; their average estimate for premature sign-off is 24.9 per cent, which is close to McNair's 20.7 per cent rate.

Prior Time budget Problems (H1)

Hypothesis 1 examines whether having a history of time budget problems influences underreporting or premature sign-off. The **Table 6** data show that Staff Level is not significant for any of the reporting choices, while Firm is significant only for Choice 6. Thus, we collapsed the data for Staff Levels and Firms for the remainder of the analysis. Country is significant for the worst underreporting choice and all of the premature sign-off choices.

The data in **Table 6** indicate that the auditor without prior problems is more likely ($p = 0.017$) to report all of the additional time (see **Table 5**) for the option of completing the task and reporting ALL of the additional time (Choice 1). This finding reverses for the options dealing with completing the task but reporting SOME or NONE of the additional time (underreporting or Choices 2 and 3). The auditor with prior problems is more likely to underreport either SOME of the additional time ($p = 0.031$) or NONE of the additional time ($p = 0.091$). Overall, the **Table 5** data indicate that the probability of completing the task (Choices 1 through 3) is about 74.2 per cent for the auditor without prior problems (26.5 per cent + 30.1 per cent + 17.6 per cent) and 75.9 per cent for the auditor with prior problems (16.9 per cent + 36.4 per cent + 22.6 per cent).

Table 6: Significance of Variables in ANOVA Models

Variable	**Ideal** Complete task, report ALL Choice 1	**Underreporting** Complete task, and report SOME Choice 2	NONE Option 3	**Premature Sign-Off** Work overtime, but do not complete task and report ALL Choice 4	SOME Choice 5	NONE Choice 6	Stop work at budget BUDGET Choice 7
Position	.683	.540	.458	.166	.999	.492	.933
Country	.235	.946	**.015** [2.71]	**.037** [2.29]	**.059** [2.07]	**.058** [2.07]	**.012** [2.81]
Firm	.424	.445	.667	.167	.233	**.010** [3.91]	.124
History	**.017** [5.77]	**.031** [4.76]	**.091** [2.88]	.945	.350	.538	.121

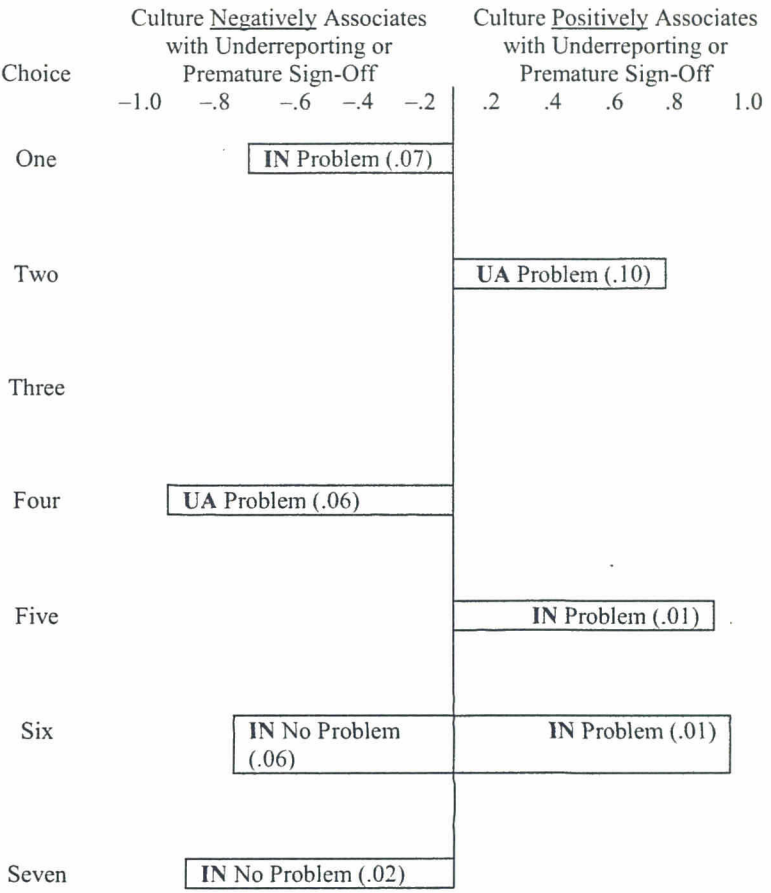
.XXX	Significance level		
[X.XX]	F statistic when significant		
Options	See appendix		
Position	0 Manager	1 Senior Manager	2 Partner
History	0 No Problem	1 Prior Problems	

Hypothesis 1 also examines whether having a history of time budget problems influences premature sign-off. The data from **Table 6** indicate that "history" was not significant for any of the premature sign-off choices of 4 through 7 (p-values of 0.121 to 0.945), allowing us to reject this portion of the hypothesis. Thus we see that while the auditor's history of time-budget problems did influence the underreporting of time worked, it did not influence the propensity to sign-off prematurely on the audit step prior to completing the task.

Cultural Influences (H2 and H3)

The last two hypotheses use the average of the responses for each country to determine whether the most likely response associates with Hofstede's Individualism and/or Uncertainty Avoidance constructs. Hofstede's definition of a culture as a system of shared beliefs and values that is made up of the 'likely reactions of citizens with a common mental programming' (Hofstede, 1991, p. 112) justifies using the average of the responses for each country. Hofstede maintains that while a culture's response may not be the same for each individual, it will occur 'statistically more often in the same society' (p. 112). A conversation with Professor Hofstede indicated an agreement with this approach (February 2000). For these two hypotheses, we divide the sample between those who have (do not have) problems meeting time budget for all seven choices on the survey questionnaire. **Figure 3** shows the significant correlations between Hofstede's (1980) Individualism and Uncertainty Avoidance constructs and the average responses to each reporting choice by group.

Figure 3: Pearson Correlation Coefficients Between Reporting Choice and Hofstede's Constructs



Choice — The average probabilities assigned to each of the seven choices (Appendix) by country.

Problem — A prior history of time budget problems.

No Problem — No prior history of time budget problems (NP).

IN (UA) — Hofstede's Individualism (Uncertainty Avoidance)

Note: Data in this figure reflect country averages.

Uncertainty Avoidance (H2)

For the auditor with prior time budget problems, Hofstede's Uncertainty Avoidance is positively associated with completing the task by working the budgeted time until it is completed and reporting only SOME of the extra time spent (Choice 2, $r^2 = 0.46$, $p = 0.10$). Uncertainty Avoidance is negatively associated with continuing the task past the budgeted time but not completing the task and reporting all of the extra time spent (Choice 4, $r^2 = 0.72$, $p = 0.06$). Uncertainty Avoidance was not a factor for the auditor with no prior problems.

Individualism (H3)

For the auditor with prior time budget problems, Hofstede's Individualism construct is negatively associated with completing the task and reporting ALL of the over budget time (Choice 1, $r^2 = 0.513$, $p = 0.07$). Additionally, for the auditor who had prior problems, Individualism is positively associated with continuing to perform the task past the budgeted time but not adequately completing the task and reporting only SOME of the "over budgeted" time (Choice 5, $r^2 = 0.74$, $p = 0.01$). Individualism is also positively associated with reporting only the BUDGETED time (Choice 6, $r^2 = 0.80$, $p = 0.01$).

For the auditor with no prior time budget problems, Individualism is negatively associated with continuing to perform the task past the budgeted time but not adequately completing the task and reporting only the budgeted time (Choice 6, $r^2 = 0.80$, $p = 0.06$). Individualism is also negatively associated with continuing to perform the task until the budgeted time and reporting only the budgeted time (Choice 7, $r^2 = 0.74$, $p = 0.02$). Consequently, Individualism mitigates the worst premature sign-off choices for auditors without time budget problems. However, it should be highlighted that the existence of prior audit time problems may be a crucial issue in the paper and there may be some question as to how one can interpret the cultural aspects of the results. This uncertainty suggests that future research in this area would be valuable.

CONCLUSIONS

The research has three findings that have potential implications for the practice of auditing. First, there is a significant probability of underreporting and/or premature sign-off in Western European countries, assuming that the scenario presented captures the

environment in accounting firms. Second, premature sign-off is associated with Hofstede's cultural constructs of Individualism and Uncertainty Avoidance. Thus, there are significant cultural differences challenging the assumption of "one firm worldwide". Third, as in the United States (Bernardi and Arnold, 1996), the problem of underreporting relates to auditors' prior problems meeting time budgets.

Implications for Mutual Recognition

When evaluating the case of the auditor with problems meeting time budgets, the participants' average responses indicate that the probabilities of doing the additional required work and reporting ALL (Choice 1) is negatively associated with Individualism. This suggests that the more "I" centred a country is (i.e. the higher the Individualism construct), the more likely auditors from that country are to follow audit requirements when their personal reputation is at risk, such as having a history of not meeting time budgets. The positive relationship between Individualism and Choice 5 (premature sign-off and report SOME of the over budget time) and Choice 6 (premature sign-off and report only the BUDGETED time) also support the concern about auditors with prior problems meeting time budgets (see **Figure 3**).

Culture can also positively influence audit integrity. For the auditor who did not have problems meeting time budgets, the probabilities of selecting the worst premature sign-off possibilities (Choices 6 and 7) were negatively associated with Hofstede's Individualism. As predicted, those auditors with problems meeting time budgets are more likely to underreport (H2A) and less likely to prematurely sign off (H2B). Consequently, Uncertainty Avoidance appears to mitigate the adverse affect of having time budget problems by reducing the probability of premature sign-off. These auditors are not willing to maintain their good records by falsifying reports.

Our findings should be an important consideration in the on-going debate as to whether the financial regulators in one country should recognise the standards (both accounting and auditing) of another country. In part, mutual recognition hinges on the similarity in the level of audit procedures required by each country. Consequently, findings of significant between-country differences on issues such as underreporting and premature sign-off are important and could influence these debates.

Implications for International Auditing Firms

Our findings indicate the potential for inter-country differences in underreporting of time and premature sign-off, which questions the firms' "one-firm-worldwide" concept. The implication of this finding is that the probability of underreporting and/or premature sign-off varies among countries, calling into question the international firms' claim of worldwide uniformity of their audit services.

The results from Western Europe reveal that the auditor responses associated with Individualism and Uncertainty Avoidance depend on the history of manipulation (Bernardi and Arnold, 1996). The probability of doing an adequate audit and reporting all the over budget time decreases with increasing Individualism (i.e. watching out for one's own interests) and leads to some form of premature sign-off when prior time budget problems exist. However, when there is no history of time budget problems, auditors are less likely to prematurely sign off and more likely to report all their time as Individualism increases. In addition, our findings also imply that the relationship of underreporting and premature sign-off with time budget problems vary with culture. This suggests that the level of scrutiny should be even greater for auditors who have problems meeting time budgets in countries with high Individualism and low Uncertainty Avoidance scores. In these countries, the decision to provide additional opportunities to auditors having problems meeting time budgets may increase a firm's audit risk.

International accounting firms should be interested in the findings for several reasons. First, they warn of the potential of underreporting and premature sign-off, especially for those auditors with a history of not meeting time budgets. Consequently, practitioners should closely monitor the progress of audits whenever auditors with histories of time budget problems are part of an audit team. Our findings also have operational implications for the international auditing firms especially when auditing multi-national clients' operations in various countries. Firms often rely on their local offices to audit the client's domestic operations. In the case of international audits at multiple locations, firms must rely on consistency and the integrity of the various phases of the audit. Another implication is that the functioning of internal audit staffs will also vary with culture. Finally, many firms are now outsourcing their internal audit functions to Big Six firms as a cost-savings move. This further confounds the problems that associate with different cultural influences.

Comparing Western Europe with the United States

Even though the case study in our research is similar to the one in Bernardi and Arnold (1996), two differences limit any comparisons of these studies. First, our participants had more options for premature sign-off and may have felt the need to enter something in each cell. Second, while Bernardi and Arnold left the estimations open-ended (the participants could select any number), we asked auditors to enter data in multiples of ten (0, 10, 20, etc.). One might argue that the respondents had too many choices and that the auditor can only engage in one option. Our auditors had four choices under premature sign-off as compared to only one in Bernardi and Arnold (1996), which may increase the use of one of these choices. However, Raghunathan (1991) found seniors had a considerable range for premature sign-off (never, vary rarely, rarely, sometimes, frequently and somewhat frequently).

Second, Bernardi and Arnold (1996, p. 14) found that auditors from the US estimate premature sign-off at 6.9 per cent, which is substantially lower than our 24.9 per cent combined average estimate (see **Table 5**) for Western European auditors. This difference may be the result of adding additional choices. Choice 7 (continue the task until the budgeted time and report the BUDGET time) is exactly the same as Bernardi and Arnold's (1996) Choice 4. Consequently, our auditors' estimate of 6.7 per cent for Choice 7 (combined average in **Table 5**) is identical to the US auditors' estimate of 6.9 per cent for Choice 4 in Bernardi and Arnold (1996). This similarity suggests that the estimates for doing all of the required work and reporting ALL of the additional time or underreporting in Bernardi and Arnold (1996) are higher because their participants only had one premature sign-off choice.

Research Limitations and Future Research

The current research includes only auditors from Big Six firms in Western Europe. Also, a new research stream might broaden the scope of the examination of underreporting and premature sign-off behaviours to local firms. Even though we use a scenario that is very similar to the one in Bernardi and Arnold (1996), the time between the two studies may impede most comparisons. While Bernardi and Arnold (1996) gathered their US data in 1991, we gathered our European data in 1997. Future research should include a sample from the US to provide a point of comparison.

Our study was an initial examination of culture and underreporting and premature sign-off. Because of this, the study sought to highlight various issues for future research. We averaged the responses from each country to obtain a country average; in doing this, we sacrificed a measure of detail. Another research design would have been to ask each respondent to provide responses to Hofstede's original questions that make up the Uncertainty Avoidance and Individualism constructs. Had we done this, we would have been able to use all 200 data points.

The findings of this and prior research provide a history of underreporting and premature sign-off. This suggests that future research should examine the effects of firm policies and incentives for reporting all billable time to determine whether they are effective. This stream of research could also study and propose changes to these policies. As part of our research design, we asked our participants to estimate what the auditor in our case study would do. Though this technique is justified and supported by prior research (e.g. Marks and Miller, 1987), using a test for social desirability bias would provide a control on this assumption.

NOTES

1 The Big Five were the Big Six when we gathered the data.

2 The literature also shows that underreporting and premature sign-off can occur for other reasons. However, this study only examines the behavioural responses to tight time budgets and auditors' prior history of meeting time budgets.

3 It could be argued that an auditor who has a history of meeting time budgets could not have engaged in options 3, 6, or 7. However, this argument is based on the premise that auditors engage in identical behaviours regardless of the circumstances. Bernardi and Arnold (1996) found that this was not the case and that auditors rarely report a single response pattern.

4 Our research captured managers' and partners' perceptions of how seniors would react to this scenario. Comparing our results with prior results indicates that upper management does not believe that a firm's policies on reducing underreporting and premature sign-off have been effective.

APPENDIX: TIME BUDGET PROBLEMS

Joe, an auditor with one year's experience as a senior at an auditing firm, has been assigned the task of confirming inventory, which is a major account on Client 4's balance sheet. After working on this task for nearly the entire budgeted time, it becomes evident to Joe that he will not be able to complete the task within the allocated time. Joe feels uncomfortable expressing an opinion without conducting additional work that would "push" him over the time budget. He reviewed the situation with his supervisor and was told that the entire audit was well over the time budget and the time allocated for this particular task was reasonable. Therefore, the time allocated would not be modified. The supervisor said: "You should be able to complete the task and reach a conclusion within the budgeted time. It has been done in prior years' audits and I do not see why it cannot be done this year." Within the year, Joe HAS HAD (HAS NOT HAD) a reputation of having frequent problems meeting budgeted time, but has never had a significant problem with the quality of his work.

QUESTION: In your opinion, what is the probability that Joe will do each of the following? In answering this question, please assign a TOTAL of 100 points distributed among the seven alternatives in proportion to the likelihood that each action will be taken. While each choice may vary from 0 to 100, please only use units of 10 percent (0 per cent or 10 per cent or 20 per cent etc.) with the total being 100 per cent.

PLEASE READ ALL SEVEN ALTERNATIVES BEFORE YOU PROVIDE YOUR RESPONSE FOR ANY ALTERNATIVE.
Joe continues to perform the task until it is completed and reports:

1 all of the "over budgeted" time that he actually spent on the task _____%
2 some of the "over budgeted" time spent on the task _____%
3 the budgeted time assigned for the task _____%

Joe will continue the task PAST the budgeted time but will NOT adequately complete the task and will report:

4 all of the "over budgeted" time that he actually spent on the task _____%

5 some of the "over budgeted" time spent on the task _____%
6 the budgeted time assigned for the task _____%

Joe continues the task ONLY until the budgeted time and reports:

7 the budgeted time for the task _____%

TOTAL = 100%

NOTE: Words in parentheses were the experimental manipulation. About half the auditors from each country got cases where Joe HAS HAD (HAS NOT HAD) frequent time budget problems.

REFERENCES

Alderman, C.W. and Dietrick, J.W. (1982). 'Auditors' Perceptions of Time Budget Pressures and Premature Audit Signoffs: A Replication and Extension', *Auditing: A Journal of Practice & Theory*, Winter, pp. 54–68.

Allen, A. (1994). 'The Effect of Large Firm Audits on Municipal Bond Rating Decisions', *Auditing: A Journal of Practice and Theory*, Vol. 14, No. 1, pp. 115–125.

Arnold, D.F., Sr., Bernardi, R.A. and Neidermeyer, P.E. (1999a). 'The Effect of Independence Decisions Concerning Additional Audit Work: A European Perspective', *Auditing: A Journal of Practice & Theory*, Vol. 18 Supplement, pp. 45–67.

Arnold, D.F., Sr., Bernardi, R.A. and Neidermeyer, P.E. (1999b). 'Reply', *Auditing: A Journal of Practice & Theory*, Vol. 18 Supplement, pp. 79–83.

Au, K.Y. (1999). 'Intra-cultural Variation: Evidence and Implications for International Business', *Journal of International Business Studies*, Vol. 30, No. 4, pp. 799–812.

Baack, D., Fogliasso, C. and Harris, J. (2000). 'The Personal Impact of Ethical Decisions: A Social Penetration Theory', *Journal of Business Ethics*, Vol. 24, pp. 39–49.

Bavishi, V.B. (1991). *International Accounting and Auditing Trends*, Princeton, NJ: Center for International Financial Analysis and Research.

Bernardi, R.A. and Arnold, D. (1996). 'Auditor Underreporting and Premature Sign-off: A Behavioural Study', *The Irish Accounting Review*, Vol. 3, No. 2, pp. 1–22.

Big Six. (2001). E-mails to contact persons for each firm by country.

Buchman, T. and Tracey, J. (1982). 'Obtaining Responses to Sensitive Questions: Conventional Questions Versus Randomized Response Technique', *Journal of Accounting Research*, Vol. 20, No. 1, pp. 263–267.

Cohen, J.R., Pant, L.W. and Sharp, D.J. (1995). 'An Exploratory Examination of International Differences in Auditors' Ethical Perceptions', *Behavioral Research in Accounting*, Vol. 7, pp. 37–64.

Collins, M. and Bloom, R. (1997). 'U.K. Accounting: Recent Developments with an International Perspective', *Research in Accounting Regulation*, Vol. 10 Supplement, pp. 173–197.

Cook, E. and Kelley, T. (1988). 'Auditor Stress and Time Budgets', *CPA Journal*, Vol. 58, No. 7, pp. 83–86.

Cook, E. and Kelley, T. (1991). 'An International Comparison of Audit Time-Budget Pressures: The United States and New Zealand', *The Woman CPA*, Vol. 53, pp. 25–30.

Doupnik, T.S. and Salter, S.B. (1995). 'External Environment, Culture, and Accounting Practice: A Preliminary Test of a General Model of International Accounting Development', *International Journal of Accounting*, Vol. 30, No. 1, pp. 189–207.

Esmond-Kiger, C. (2000). 'An Experimental Study of the Interactive Effects of Reward Structure and Individual Ethics on Reporting Behaviour. Presented at the Fifth Symposium on Ethics', *Research in Accounting*, Philadelphia, PA.

Gist, W. and Davidson, R. (1999). 'An Exploratory Study of the Influence of Client Factors on Audit Time Budget Experiences', *Auditing: A Journal of Practice & Theory*, Vol. 18, No. 1, pp. 101–116.

Gray, S.J. (1988). 'Towards a Theory of Cultural Influences on the Development of Accounting Systems Internationally', *Abacus*, Vol. 24, No. 1, pp. 1–15.

Hampden-Turner, C. and Trompenaars, F. (1993). *The Seven Cultures of Capitalism*, New York: Doubleday.

Hofstede, G. (1980). *Culture's Consequences*, Beverly Hills: Sage.

Hofstede, G. (1984). 'Culture Dimensions in Management and Planning', *Asia Pacific Journal of Management*, Vol. 1, No. 1, pp. 81–99.

Hofstede, G. (1991). *Cultures and Organizations: Software of the Mind*, New York: McGraw Hill.

Hofstede, G., Neuijen, B., Ohayv, D. and Sanders, G. (1990). 'Measuring Organizational Cultures', *Administrative Science Quarterly*, Vol. 35, pp. 286–316.

Houston, R.W. (1999). 'The Effects of Fee Pressure and Client Risk on Audit Seniors' Time Budget Decisions', *Auditing: A Journal of Practice & Theory*, Vol. 18, No. 2, pp. 70–86.

Jeurissen, R.J.M. and Van Luijk, H.J.L. (1998). 'The Ethical Reputations of Managers in Nine EU Countries: A Cross-referential Survey', *Journal of Business Ethics*, Vol. 17, pp. 995–1005.

Johnson, W. and Lys, T. (1990). 'The Market for Audit Services: Evidence from Voluntary Changes', *The Journal of Accounting and Economics,* Vol. 12, No. 1–3, pp. 281–308.

Kaplan, S. and Reckers, P. (1993). 'An Examination of the Effects of Accountability Tactics on Performance Evaluation Judgments in Public Accounting', *Behavioral Research in Accounting,* Vol. 5, pp. 101–123.

Kelley, T. and Margheim, L. (1990). 'The Impact of Time Budget Pressure, Personality, and Leadership Variables on Dysfunctional Auditor Behavior', *Auditing: A Journal of Practice & Theory*, Spring, pp. 21–42.

Kelley, T. and Seiler, R. (1982). 'Auditor Stress and Time Budgets', *CPA Journal*, (December), pp. 24–32.

Lampe, J. and Finn, D. (1992). 'A Model of Auditors' Ethical Decision Process', *Auditing: A Journal of Practice & Theory*, Vol. 12 Supplement, pp. 33–59.

Lightner, S.M. (1981). 'An Examination of Underreporting of Hours by Auditors in Public Accounting Firms', *Ohio CPA Journal*, Summer, pp. 97–100.

Lightner, S.M., Adams, S.J. and Lightner, K.M. (1982). 'The Influence of Situational Ethical and Expectancy Theory Variables on Accountants' Underreporting Behavior', *Auditing: A Journal of Practice & Theory*, Fall, pp. 1–12.

Lightner, S. M., Leisenring, J.J. and Winters, A.J. (1983). 'Under-reporting Chargeable Time', *Journal of Accountancy*, January, pp. 52–57.

Louwers, T.J. and Strawser, J.R. (2000). 'Aspects of Underreporting Audit Time', *Research on Accounting Ethics*, Vol. 7, pp. 19–44.

Margheim, L. and Pany, K. (1986). 'Quality Control, Premature Signoff, and Underreporting of Time: Some Empirical Findings', *Auditing: A Journal of Practice & Theory*, Spring, pp. 50–63.

Marks, G. and Miller, N. (1987). 'Ten Years of Research on the False-Consensus Effect: An Empirical and Theoretical Review', *Psychological Bulletin*, Vol. 102, pp. 72–90.

McDaniel, L. (1990). 'The Effects of Time Pressure and Audit Program Structure on Audit Performance', *Journal of Accounting Research*, Vol. 28, No. 2, pp. 267–285.

McDonald, R. and Ho, K. (1996). 'Questioning Techniques and Social Desirability Response Bias in Ethical Scenarios', Paper presented at the *National Meeting of the American Accounting Association,* Chicago, IL.

McNair, C.J. (1991). 'Proper Compromises: The Management Control Dilemma in Public Accounting and Its Impact on Auditor Behaviour', *Accounting, Organizations and Society*, Vol. 16, No. 7, pp. 635–653.

Nobes, C. (1998). 'Towards a General Model of the Reasons for International Differences in Financial Reporting', *Abacus*, Vol. 34, No. 2, pp. 162–187.

Otley, B. and Pierce, B. (1995). 'The Control Problem in Public Accounting Firms: An Empirical Study of the Impact of Leadership Style', *Accounting, Organizations and Society*, Vol. 20, No. 5, pp. 405–420.

Otley, B. and Pierce, B. (1996). 'Auditor Time Budget Pressure: Consequences and Antecedents', *Accounting, Auditing, and Accountability Journal*, Vol. 9, No. 1, pp. 31–58.

Pany, K., Pourciau, S. and Margheim, L. (1989). 'Controlling Audit Staff Underreporting of Time and Premature Signoffs: Some Preliminary Findings', *Advances in Accounting*, Supplement, pp. 181–194.

Ponemon, L.A. (1992). 'Auditor Underreporting of Time and Moral Reasoning: An Experimental Lab Study', *Contemporary Accounting Research*, Fall, pp. 171–189.

Ponemon, L.A. and Gabhart, D.L. (1993). 'Ethical Reasoning in Accounting and Auditing', *Research Monograph Number 21*, Vancouver, BC: CGA-Canada Research Foundation, pp. 89–103.

Raghunathan, B. (1991). 'Premature Signing-Off of Audit Procedures: An Analysis', *Accounting Horizons*, Vol. 5, No. 2, pp. 71–79.

Reckers P.M.J., Wheeler, S.W. and Wong-On-Wing, B. (1997). 'A Comparative Examination of Auditor Premature Sign-offs Using

Direct and Randomized Response Methods', *Auditing: A Journal of Practice & Theory*, Vol. 16, No. 1, pp. 69–78.

Rest, J. (1986). *Moral Development: Advances in Research and Theory*. Westport, CN: Praeger Publishers.

Rhode, J.G. (1978). 'Survey on the Influence of Selected Aspects of the Auditors' Work Environment on Professional Performance of Certified Public Accountants', issued as the *Independent Auditor's Work Environment: A Survey*, New York: AICPA.

Ross, L., Greene, D. and House, P. (1977). 'The "False Consensus Effect": An Egocentric Bias in Social Perception and Attribution Process', *Journal of Experimental Social Psychology*, Vol. 13, pp. 279–301.

Rotter, J.B. (1966). 'Generalized Expectancies for Internal versus External Control of Reinforcement', *Psychological Monographs,* 80.

Salter, S.B. and Niswander, F.D. (1995). 'Cultural Influence on the Development of Accounting Systems Internationally: A Test of Gray's (1988) Theory', *Journal of International Business Studies*, Vol. 25, No. 2, pp. 379–398.

Schultz, J., Jr., Johnson, D., Morris, D. and Dyrnes, D. (1993). 'An Investigation of the Reporting of Questionable Acts in an International Setting', *Journal of Accounting Research*, Vol. 31, No. 3, pp. 75–103.

Shapeero, M. and Killough, L. (1993). 'Underreporting of Billable Hours: Implications of Student Attitudes and Attributes', Working Paper, Virginia Polytechnic Institute and State University.

Soeters, J. and Schreuder, H. (1988). 'The Interaction between National and Organizational Cultures in Accounting Firms', *Accounting Organizations and Society*, Vol. 13, No. 1, pp. 75–86.

Thorne, L. (1999). 'Discussion of The Effect of Independence on Decisions concerning Additional Audit Work: A European Perspective', *Auditing: A Journal of Practice & Theory*, Vol. 18 Supplement, pp. 69–74.

Willett, C. and Page, M. (1996). 'A Survey of Time Budget Pressure and Irregular Auditing Practices Among Newly Qualified UK Chartered Accountants', *The British Accounting Review,* Vol. 28, No. 2, pp. 101–120.

Wingate, M.L. (1997). 'An Examination Of Cultural Influence On Audit Environment', *Research in Accounting Regulation*, Vol. 10 Supplement, pp. 115–127.