# CHAPTER 4

## (Paper 3)

## Judgments Based on Interpretation of 'New' and 'Complex' International Financial Reporting Standards within a Country: Evidence from Fiji

**ABSTRACT**

This study extends prior research on accounting judgment and decision making research by examining the effects of 'new' and 'complex' accounting standards on judgments of professional accountants. It examines whether there are differences in judgments between the big 4 and non-big 4 professional accountants in Fiji when interpreting and applying selected International Financial Reporting Standards (IFRSs). A significant within-country difference in judgments of professional accountants has serious implications for convergence of accounting standards. The results show that differences in judgments exist between big 4 and non-big 4 professional accountants when provided with new accounting standards that require complex judgments. The study finds strong support for an interaction between familiarity and complexity of accounting standards on judgments of professional accountants. The results of this study are of interest to stakeholders at a time when IFRSs are increasingly being adopted throughout the world and standard setters are struggling to promote compliance with those standards.

**Keywords:**
Convergence
Accounting standards
Complexity
Familiarity
Judgments

## 4.10 INTRODUCTION

The number of countries adopting the International Accounting Standards (IASs) and International Financial Reporting Standards (IFRSs) issued by the International Accounting Standards Board (IASB) as their national standards is growing.[1] IFRSs represent a principles-based or 'substance over form' regime (Chambers and Wolnizer 1991; Doupnik and Richter 2003; Abacus Editorial 2004). A 'substance over form' approach, in contrast to a legalistic approach, is driven by principles and concepts rather than by the application of strict rules. Principles-based accounting standards provide accountants with guidelines which require the application of professional judgment (Brown et al. 1993, p.275). To be able to consistently apply these standards, it is crucial to understand the rationale behind the principles espoused in particular standards (Picker et al. 2006, p.xiii). Therefore, with principles-based standards, professional judgment is important and the desire for unbiased reporting is paramount (AAA Financial Accounting Standards Committee 2003, p.81).

The principles-based standards also provide greater choices in the recognition and measurement of various accounting transactions (Doupnik and Richter 2003, p.15) and incorporate 'uncertainty expressions' (such as 'probable,' 'significant influence,' 'control' and 'substantial') that require the exercise of accountants' professional judgments. For example, in IAS 27 *Consolidated and Separate Financial Statements*, the rules-based quantitative criterion of over 50% shares in entities has now been replaced with a qualitative criterion of 'control,' which requires the exercise of professional judgment in identifying an economic entity for which consolidated accounts may be prepared. Similarly, in other standards, such as IAS 17 *Leases*, and IAS 28 *Investments in Associates*, rules-based quantitative criteria have been replaced with qualitative principles. The existing core IASs and the new generation of IFRSs contain significant recognition and measurement alternatives and incorporate broad guidelines

[1] Recall (from Chapter 1) that a survey by Deloitte Touche Tohmatsu (2007) reported that almost hundred countries have adopted or intend to adopt the IFRSs for all their domestic listed companies.

that can be applied in various contexts. As such, the requirement to exercise professional judgment is the most important component in interpreting and applying IASs/IFRSs in both developed and developing economies (Schultz and Lopez 2001; Schwartz 2001; Rahman et al. 2002; The Institute of Chartered Accountants of Scotland 2006).

The need to exercise professional judgment is of greater concern for developing economies that may not have an adequate supply of qualified and experienced accountants. In addition, developing economies may not have a well-established accounting profession and regulators to interpret and adequately enforce the IASs/IFRSs. Since a large number of developing economies are adopting the IASs/IFRSs (Deloitte Touche Tohmatsu 2007), it is important to examine whether professional accountants in these countries are interpreting and applying the IASs/IFRSs in a consistent manner. Importantly, professional accountants in developing economies may not have relevant experience in exercising professional judgments, particularly on issues related to complex accounting standards. The implicit assumption in the convergence of accounting standards is that greater comparability in financial reports across countries will result if they adopt the IASs/IFRSs (Schultz and Lopez 2001, p.273). Apart from the use of a single set of standards, comparability in financial reporting also requires consistent interpretation and application of those standards across countries (Doupnik and Richter 2003, p.16).

Motivated by the global thrust towards convergence and the implicit assumption that it will achieve international comparability in financial statements, this study examines the importance of consistency in interpreting and applying IASs/IFRSs. To date, a limited number of studies have considered judgments of professional accountants in applying principles-based standards (such as Mason and Gibbins 1991; Hronsky and Houghton 2001; Schultz and Lopez 2001; Doupnik and Richter 2003 & 2004; Psaros and Trotman 2004; Psaros 2007). However, almost all the studies in the literature on professional accountants' judgments have been undertaken in the context of developed countries. To

address this gap and to extend this strand of research, Fiji has been selected in this study in order to make a contribution in the context of developing economies.

In 2002 the Fiji Institute of Accountants (FIA) adopted a set of standards based on extant IASs and IFRSs, which led to the modification of some of the previous standards and the introduction of new accounting standards. The previous set of standards in Fiji was based on Australian, New Zealand and the IASB standards. When the empirical observations were made in 2004, two sets of standards were in use in Fiji—ones that the professional accountants had historically been applying and were familiar with (denoted as 'old' standards) and others that were new (denoted as 'new' standards).[2] This categorization of standards as 'old' and 'new' provides a unique research setting to empirically test the differences in judgments of professional accountants, given both the 'old' and 'new' sets of standards.

Specifically, using a sample of professional accountants from Fiji, this study examines the effects of complexity and the familiarity of accounting standards on accountant's judgments. This study also examines how the effects of complexity and familiarity vary between the big 4 and non–big 4 professional accountants. Consequently, professional accountants in Fiji are categorized into two groups—the big 4 and non-big 4 professional accountants.[3] The major reason for the differences in judgments of professional accountants within a country may be attributed to a lack of experience of the non-big 4 professional accountants in dealing with complex accounting standards. In a similar manner to most other developing economies, multinational enterprises in Fiji are mostly audited by the big 4 accounting firms and the non-big 4 professional accountants serve the small and medium-sized enterprises. Hence, non-big 4

[2] From 1 July 2002 the FIA has adopted all extant IASs numbered 1–34 with the exception of IAS 12 (for taxation, Fiji used the profit and loss approach of the previous IAS 12 rather than the balance sheet approach of the revised IAS 12). IAS 12 together with IAS 35–41 and IFRSs were regarded as 'guidance standards,' which entities were encouraged to use where relevant although they were not mandatory (see Chapter 2 for further details).

[3] The Big 4 multinational accounting firms include Deloitte Touche Tohmatsu, KPMG, PricewaterhouseCoopers and Ernst and Young.

professional accountants are not likely to apply complex standards and deal with issues that require greater exercise of professional judgment. Additionally, the non-big 4 professional accountants may not have access to the same resources and training as do the big 4 professional accountants. Given these differences between the big 4 and non-big 4 accountants, the primary objective is to test whether there are differences in the judgments of the big 4 and non-big 4 professional accountants when interpreting and applying selected IASs/IFRSs.

This study has implications for the convergence of accounting standards. The aim of convergence is that the financial reports are comparable across different countries. However, there are many reasons why comparability in financial reporting is not determined by accounting standards alone (Ball et al. 2000; Ball et al. 2003). Standards require adequate enforcement and judgment is involved in interpreting accounting standards. Yet, adopting the IASB standards is given almost exclusive attention in achieving comparable financial information. If IASs/IFRSs are not applied in a consistent manner then comparable reporting is unlikely to be achieved even if countries have adopted a single set of globally acceptable financial reporting standards. Given the changes in the business environments and the issue of complex principles-based IASs/IFRSs, it will be an onerous task to train professional accountants to interpret and apply these standards in a consistent manner (Bedard 1991; Earley 2001; Vera-Munoz et al. 2001). To the extent that uncertainty expressions are being used in IASs/IFRSs and are interpreted differently by professional accountants in different countries, comparability of financial reports will continue to suffer (Doupnik and Richter 2003, p.16).

In a world with significant institutional differences among countries (Pope 2003, p.273), a better understanding of the factors affecting the judgments of professional accountants will enable regulators to identify ways to eliminate differences. The empirical evidence presented in this paper is likely to help in identifying ways of training accountants to acquire the necessary professional skills for the purpose of interpreting and applying

principles-based standards in a consistent manner. Importantly, in applying principles-based standards, significant differences in judgments of professional accountants would have substantial policy implications. If professional accountants in developing economies are not adequately trained and experienced in applying IASs/IFRSs, then standard setters in these countries may consider mandating a set of accounting standards with a greater focus on rules as opposed to principles that require the exercise of professional judgment.

The remainder of the paper is organized as follows. The first section provides the background and outlines the contribution of this study. The second section discusses the relevant theory and formulates the research hypotheses. The third section outlines the research methods and this is followed by the results. The final section is the conclusion and implications of this study.

## 4.20 BACKGROUND AND CONTRIBUTION

Much attention has been given in the extant accounting literature to accounting standards, how they vary across countries, and the political and economic pressures to reduce variation (Ball et al. 2003, p.246). Very limited research has been carried out on the impact of accounting standards on the judgments of professional accountants, though considerable research has been undertaken on the judgments required on auditing issues, including audit planning, internal control evaluation, extent of testing and materiality limits to be used by auditors (see Bonner 1994 and Tan et al. 2002 for reviews). While several studies shed light on issues related to the purported benefits and costs related to the principles and rules-based accounting standards (for example, Gibbins et al. 2001; Hronsky and Houghton 2001; Dye 2002; Nelson et al. 2002), very few studies have actually examined the judgments of professional accountants in interpreting and applying principles-based accounting standards.

Accounting standards contain definitions of accounting concepts whose function is to guide judgments made in practice (Hronsky and Houghton 2001, p.123). A few studies have examined the differential meaning of basic accounting concepts held by preparers and users of financial accounting information (such as Oliver 1974; Houghton 1987 & 1988; Houghton and Messier 1990; Hronsky and Houghton 2001; Doupnik and Richter 2003). With the move towards convergence of accounting standards, a few studies have also examined whether the judgments made by professional accountants in different countries will be similar given the same economic facts and similar accounting standards (for example, Schultz and Lopez 2001; Doupnik and Richter 2004). These two studies raised an important question, most relevant to the current study, of whether a common set of accounting standards can be applied consistently within and across countries.

Generally, the studies undertaken in the literature on accountants' judgments has so far provided some evidence for the effect of the interpretation of uncertainty expressions in the principles-based standards on the judgments of professional accountants and financial reporting. Additionally, studies with an educational focus have shown that the meanings of accounting concepts held by students change over time and meanings held by inexperienced accountants are not identical to those held by more experienced accountants (see Hronsky and Houghton 2001, p.126 for a review). Surprisingly, little theoretical guidance exists as to how a set of 'complex' and 'new' accounting standards impacts on judgments of professional accountants.

This study extends prior research on the judgment of professional accountants in four ways. First, it extends the scope by examining the impact of both 'old' and 'new' sets of accounting standards, and importantly, in the context of a developing economy. It considers the impact of both the standards that the professional accountants are familiar with ('old' standards) and also those that are totally 'new.' While previous studies have shown that task familiarity has varying effects on professional judgment in various contexts (see Asare and McDaniel 1996 for a review of these studies), they have not specifically considered whether accountants interpret and apply a 'new' set of standards

in a consistent manner. This relationship between a 'new' standard and professional judgment is now paramount given the global thrust towards convergence and the frequency of changes to the IFRSs. The IASB's program of developing new IFRSs is as active and full as ever (Whittington 2005, p.144), indicating that in the near future the IASB will continue to amend a number of existing standards and also issue new standards. While the preparers of financial statements of entities in various countries grapple with unfamiliar requirements, the changes to the IFRSs denote that this phase of change is yet to be completed (Thetford 2005, p.1).[4] Therefore, it is important to consider whether there is consistency in application of both an 'old' and a 'new' accounting standard.

Secondly, this study also examines the impact of IFRSs that are both 'simple' and 'complex.' The impact of task complexity on individuals' judgment has been widely considered in the psychology and audit literature (for example, Payne 1976; Wood 1986; Campbell 1988; Bonner 1994; Asare and McDaniel 1996; O'Donnell et al. 2005). However, no prior research has investigated the nature of the relation between 'complexity' in accounting standards and judgments of professional accountants. In this study, an accounting standard is regarded to be 'complex' when the amount of information that professional accountants must evaluate is greater or where the evaluation criteria and the appropriate form of disclosure lack clarity. It is argued that complexity in accounting standards may have a significant effect on the extent to which professional accountants will exhibit consistency in judgments. Examination of the effects is also important because a number of countries have found IFRSs to be 'complex' to apply (Devi 2003; Wong 2004). For example, the Financial Services Authority (FSA) in the UK allowed a 120-day extension for companies submitting half-year reports under IFRS at 30 June 2005 (FSA 2004). This example indicates concern by

[4] The IASB indicated in July 2006 that it will not introduce any new IFRSs, or activate amendments under development, until 1 January 2009. Instead, discussion papers will be released to facilitate conceptual input in response to criticism that the pace of change has been too quick (Bolton 2006, p.6). Therefore, adequate interpretation and enforcement of IFRSs will continue to be an issue in the future as numerous new standards will be ready to be mandated in 2009.

the regulators that companies reporting under IFRS would not be prepared in time because of complexities in interpreting new requirements under IFRSs.

Thirdly, prior research in auditing provides evidence of a possible interaction between task complexity and familiarity (see Asare and McDaniel 1996, pp.145–146). Overall, the evidence suggests that for a complex and unfamiliar task, professional accountants are less effective in decision making than they are for a complex but familiar task. For example, Asare and McDaniel (1996) found, in an audit context, that preparer familiarity and task complexity interactively determined the effectiveness of auditors in detecting conclusion errors. It is argued that both familiarity with the accounting standard and complexity in the standard may interact to influence its interpretation and application. Based on Asare and McDaniel's (1996) findings, an ordinal interaction between familiarity and complexity of standards on judgments of professional accountants is also expected. An important contribution this study makes is by demonstrating that there are differences in the judgments of the big 4 and non-big 4 professional accountants when provided with 'new' accounting standards that required complex judgments. However, no difference in the judgments of the big 4 and non-big 4 professional accountants was found when provided with 'old' accounting standards that required complex judgments. The results also show that both familiarity with the accounting standards and complexity in accounting standards have a significant effect on the judgments of the big 4 and non-big 4 professional accountants. Additionally, results shows that familiarity with the accounting standards and the complexity of accounting standards interact to influence the judgments of professional accountants.

Finally, this study not only considers the interpretation of uncertainty expressions in principles-based standards (such as Oliver 1974; Chesley 1986; Harrison and Tomassini 1989; Amer et al. 1995; Hronsky and Houghton 2001; Doupnik and Richter 2003), but examines the judgments of professional accountants on specific accounting issues that are guided by the selective principles containing the uncertainty expressions in the IASs/IFRSs. Though a number of studies have considered the interpretation of

uncertainty expressions, surprisingly little theoretical guidance exists as to how these uncertainties are interpreted and applied in providing a relevant financial disclosure. Thus, this study provides some evidence on how consistently professional accountants interpret and apply accounting standards which contain uncertainty expressions in real world situations.

## 4.30 THEORY AND HYPOTHESES DEVELOPMENT

### 4.31 Interpretation and Application of 'Complex' Accounting Standards

Accounting standards interpreted by professional accountants vary in their level of complexity. Professional accountants routinely deal with accounting standards that are both simple and complex. But the lack of research into this aspect means that relatively little is known about the influence of this decision variable on judgments of professional accountants.

Prior research in auditing has defined and operationalized task complexity in a number of ways. For example, Asare and McDaniel (1996, p.140) using Wood's (1986) findings argued that task complexity varies "in terms of the number of distinct acts that must be executed and the number of cues that must be processed in the performance of those acts." On the other hand, O'Donnell et al. (2005, p.148) based on a number of previous studies argue that complexity increases as (a) "the amount of attentional capacity or mental processing needed to complete the task increases" or (b) "the number of decision cues increases" or (c) "when the diagnostic value of the decision cues lacks clarity." A number of studies have also shown that task complexity causes increases in both the time and the level of cognitive effort which requires greater attention and prolonged deliberations (see Asare and McDaniel 1996, p.140). For example, Bonner (1994) provides a model to explain how audit judgment performance is influenced by a number of factors including the amount of information that auditors have to evaluate as well as

the clarity of the evaluation criteria that they must employ. Overall, prior research on human decision making process has shown that the amount of information that has to be processed and the clarity of the information provided has an impact on the judgments of individuals.

Complexity in accounting standards is an important factor in interpreting and applying those standards. For instance, principles-based standards contain uncertainty expressions, but no clear-cut guidelines are given (as was the case in rules-based standards) on how to interpret these standards. Principles-based standards only provide some broad guidelines that have to be interpreted by professional accountants. As principles-based standards require a greater exercise of judgment than do rules-based standards, professional accountants consider the former standards to be relatively more complex. Following Bonner (1994), it is argued that an accounting standard is complex when the evaluation criteria and the appropriate form of disclosure lack clarity or where the amount of information that professional accountants must evaluate is greater. Thus, task complexity is expected to increase the time spent on applying the relevant standard and the cognitive effort in interpreting the standard. Specifically, when a standard is complex, the professional accountant will need to interpret uncertainty expressions and evaluate a number of broad principles in determining the appropriate form of financial disclosure. In this study, as outlined in the research method section, task complexity was operationalized by (1) drawing scenarios from accounting standards that contain uncertainty expressions and (2) varying the number of relevant principles (paragraphs) in the accounting standard that the professional accountant has to interpret and apply, which in turn requires a greater exercise of professional judgment and decision making on the accountant's part.

## 4.32 Interpretation and Application of 'New' Accounting Standards

Examining the effects of familiarity with the accounting standards is important because IASs/IFRSs are now revised and/or issued quite frequently.[5] When a new accounting standard is issued, professional accountants will require appropriate training and exposure before they would be able to proficiently interpret and apply these standards. The better the professional accountants are trained and the more they are exposed to a new standard, the greater will be their level of familiarity with the standard. Using accounting standards that are familiar may allow professional accountants to interpret and apply them more consistently by reducing the uncertainty inherent in working with new accounting standards. Auditing research drawing from the field of psychology (especially that of cognitive psychology and the psychology of learning) offers evidence regarding the way professional accountants 'learn by doing' (Earley 2001, p.83), giving insight into how accountants may interpret and apply accounting standards that are new.

Voss (1987) argued that when individuals are asked to process something that is familiar, processing often occurs quite quickly and is virtually automatic. Such processing includes performing routine tasks like driving or doing a simple mathematical problem. These examples are considered to be 'well-structured' as each has a well established procedure that can be followed or an objectively correct answer. A number of studies in cognitive psychology have shown that individuals can learn from studying worked examples in a variety of domains (see Earley 2001, pp.83–84 for a review of these studies). Schank (1999) showed that individuals continue to reorganize information in their memory as new experiences accumulate. Based on his *Theory of Dynamic Memory*, he further argued that in understanding an input an individual will find the closest approximation in one's past experience to the input and then code the input in terms of the previous memory by means of an index. Individuals use a memory

[5] The IASB has made numerous changes to its IASs and issued new IFRSs since establishing its 'stable platform' of standards in 2004. For example, after adopting the IASs/IFRSs from the beginning of 2005, the standard setters in Australia had to make several consequential amendments to its Australian equivalents of the IASs/IFRSs (see Chapter 2 for details).

index while storing new information, retrieving existing knowledge, and creating new indices for novel information. In this process, the more similar problems individuals encounter in a related task, the greater the number of comparisons to prior experiences, the stronger the prior experiences and the more new indices are stored in their memory (see Kopp and O'Donnell 2005, pp.425–426 for further analysis on Schank's theory). "In this sense, learning consists not only of knowledge acquisition but of relating one's existing knowledge to the incoming knowledge and integrating the old and new knowledge. Thus, when learning a particular subject matter it is assumed that related subject matter is activated and the new and old information become integrated" (Voss 1987, p.611).

A number of studies have also found that an individual can abstract the underlying features of a problem even from studying only one example, and can then use this knowledge to solve new problems (see Earley 2001, pp.83–86 for a review of these studies). However, this may not be the case when individuals process tasks that are 'unstructured.' Such tasks lack a pattern or a match of the problem type per se, although a person may have knowledge of similar problems and their proposed solutions (Voss 1987, p.616). In addition, unstructured tasks may not have objectively correct answers (Earley 2001, p.84). Unstructured tasks also provide less guidance and are usually more complex than structured tasks (Wood 1986; Bonner 1994; Asare and McDaniel 1996). Overall, evidence suggests that to be able to become familiar with unstructured tasks professional accountants would require a greater level of training and exposure when compared to a structured task.

It is argued that the interpretation of principles-based standards that contain uncertainty expressions are more 'unstructured' in nature as there is no objectively correct interpretation and professional accountants have to exercise their own judgments in determining the appropriate form of financial disclosure. Therefore, professional accountants need to be well trained and extensively exposed to principles-based standards before they can be expected to interpret and apply these standards in a

consistent manner. Consequently, it is argued that familiarity appears to be an important variable affecting how accounting standards are interpreted and applied. This argument seems reasonable in that interpretation and application of familiar accounting standards ('old' standards) may be more consistent than that of unfamiliar ones ('new' standards). Additionally, it is argued that the complexity of a task and the familiarity of a task may interact to influence the judgments of professional accountants. So for a complex and unfamiliar task, it is expected that professional accountants will be more inconsistent in decision making than they are for a complex but familiar task.

## 4.33 Development of Hypotheses

### 4.33.1 Simple and Less Complex Judgments (H1 and H2)

The research on professional accountants' judgments has contributed considerably to our knowledge of factors that impact on accountants when making professional judgments (Lin et al. 2003, p.21). Recall that researchers have shown that many factors, including level of formal education, accounting firm affiliations, age, gender and ethnicity (culture) influence professional accountants' judgments (Libby and Luft 1993; Bonner 1994; Doupnik and Salter 1995; Nobes 1998). In this movement towards globalization, the role of big multinational accounting firms is important. In the convergence of accounting standards, the organizational culture of public accounting firms is important because of its ability to affect the motivation, behavior and performance of accounting firm participants (Pratt and Beaulieu 1992; Carpenter et al. 1994; Holmes and Marsden 1996; Chow et al. 2002).

The big 4 multinational accounting firms both contribute to global accounting convergence and at the same time exemplify convergence processes at work in large organizations (Cooper et al. 1998, p.531). Evidence from prior studies shows that there are many similarities in the organizational culture of big multinational accounting firms (Cushing and Loebbecke 1986; Manson et al. 1998; Patel 2003). Organizational culture

symbolizes members' shared values and beliefs that in turn influence individuals' judgments (Schein 1985; Etzioni 1988; Windsor 2000; Patel 2003). Within the big 4 multinational accounting firms there has been a focus on the development of manuals and other resources that provide relevant details related to the interpretation and application of accounting standards so that there is improved within-firm consensus and consistency (Cushing and Loebbecke 1986; Manson et al. 1998; Lennox 1999; Lin et al. 2003).

In a recent study, Chow et al. (2002) examined the organizational culture of public accounting firms with data from US affiliated international accounting firms in Taiwan and Taiwanese local firms. The study tested hypotheses on the impact of national culture of the US firms on their Taiwanese affiliates and cultural differences across functions and rank. The study found support for the cultural impact reporting that "culture is found to be relatively homogeneous across function, [however] differences are found across rank" (p.347). Generally, studies have shown that international accounting firms are unitary or frictionless organizations providing what the firms themselves proudly call 'seamless service' (Barrett et al. 1997; Cooper et al. 1998, p.532).

Prior research in auditing shows that the general pattern of professional accountants' knowledge development is twofold. Formal education provides the initial foundation of basic accounting and audit knowledge for professional accountants upon which later experiences are developed (Frederick et al. 1994; Curtis and Viator 2000). As accounting students, they are exposed to aspects of both how to interpret and apply accounting standards and how to undertake an audit. The second means through which professional accountants further develop their expertise is via training, which includes both internal firm training and other professional training.

In Fiji, the professional accountants of both the big 4 and the non-big 4 groups provide the accounting services. Apart from the expatriate accountants that constitute a small proportion of the total membership of the Fiji Institute of Accountants, the local

members generally have similar educational backgrounds. Most of the professional accountants receive their academic qualification at the University of the South Pacific, where IASs/IFRSs are an important part of the curriculum. While the big 4 multinational accounting firms conduct in-house training, professional development training programs conducted by the Fiji Institute of Accountants attract participants from both the big 4 and non-big 4 professional accountants. Therefore, for standards that require simple and less complex professional judgment, it is not expected that there will be any difference between the judgments of the professional accountants from the two groups (big 4 and non-big 4), whether the standard is 'old' or 'new.' Based on this reasoning the following hypotheses are formulated.

H1: There will be no differences in judgments between big 4 and non-big 4 professional accountants when provided with 'old' accounting standards that require simple and less complex judgments.

H2: There will be no differences in judgments between big 4 and non-big 4 professional accountants when provided with 'new' accounting standards that require simple and less complex judgments.

### 4.33.2 Complex Judgments (H3 and H4)

Extant research in auditing and psychology that has already been reviewed suggests that task complexity has an impact on judgments. These studies also indicate that task complexity has a significant effect on the extent to which individuals exhibit consistency in judgments. It is expected that complexity in accounting standards also plays a significant role in the consistent application of standards. A greater effort may be required in interpreting and applying accounting standards that are complex. That is, professional accountants are expected to spend considerably more time in interpreting and applying a complex standard relative to a less complex standard. Additionally, it is expected that professional accountants with more procedural knowledge will be able to

provide more consistent judgments when compared to accountants with less procedural knowledge. For the purpose of this study, procedural knowledge "consists of the rules or steps needed for performing skilled tasks" (Bonner and Walker 1994, p.158).

Several studies have examined the differences between expert and novice problem-solving performances in various contexts (for example, Chase and Simon 1973; Chi et al. 1981; Bedard 1989 & 1991; Anderson and Maletta 1994; Earley 2001). Overall, the results from these studies provide evidence that experts are likely to possess greater procedural knowledge when compared to novices. In the auditing literature, the differences between expert and novice performances have been attributed to a combination of education, training and experience effects. Education, training and experience have been found to provide opportunities to professional accountants to accumulate a wealth of task-related knowledge (Libby and Luft 1993, p.427). The acquired knowledge could be separated into two categories—public or private; public knowledge consists of facts, theories and definitions from textbooks and journals while private knowledge consists of rules of thumb (heuristics) that are developed through direct experience (Bedard 1989, p.115). While public knowledge could be acquired by all professional accountants by completing the relevant studies, acquisition of private knowledge requires individuals to rely on their procedural knowledge (Bonner and Walker 1994, p.158).

A number of studies have shown that professional accountants with more procedural knowledge are able to distinguish relevant from irrelevant decision cues better than professionals with less procedural knowledge (Gibbins 1984; Bonner and Walker 1994; O'Donnell et al. 2005). O'Donnell et al. (2005) further argued that procedural knowledge has limited influence on judgment when the match between facts and criteria is clear-cut (either because there are few criteria or because the criteria have been clearly met). "In other words, when complexity is low, professionals with less procedural knowledge (but enough to make the decision) should generally come to the same conclusions as professionals with much more procedural knowledge" (O'Donnell et al.

2005, p.149). On the other hand, in performing complex tasks individuals utilize different heuristics where a greater level of procedural knowledge is required. This suggests that the heuristics used by individuals may be systematically related to certain characteristics of the task structure (Payne 1976, p.367). Therefore, a mismatch between a professional accountant's procedural knowledge and the task structure may hinder their ability to draw on prior experience and consequently undermine their problem-solving performance (Borthick et al. 2006, p.327).

Prior research conducted on novice accountants has found that novices with less developed procedural knowledge are able to exhibit enhanced decision making when task structure is matched with their knowledge structure (see Kopp and O'Donnell 2005). However, as task complexity increases, procedural knowledge becomes more influential on the judgments of professional accountants (Bonner 1994). Studies have also found that professional accountants with more procedural knowledge can recognize uncertainty surrounding the match between facts and decision criteria better than those who lack procedural knowledge (Cloyd 1995; O'Donnell et al. 2005, p.150). In other words, it is expected that professional accountants who are better trained and more exposed to principles-based accounting standards would be able to interpret and apply these standards in a proficient manner when compared to accountants who lack the appropriate training and exposure.

In the context of this study, as discussed earlier, evidence suggests that the big 4 professional accountants may exhibit relatively higher levels of consistency in judgments. This is due to a relatively similar organizational culture that prevails in the big 4 multinational accounting firms. The differences in the selection and socialization processes (the processes by which values of organizational members are made compatible with those of the organization) used by the big 4 firms when compared to non-big 4 firms give rise to the different values shared by the members of each group (Pratt and Beaulieu 1992, p.668). In the case of Fiji, the head offices of multinational accounting firms based in Australia closely monitor and provide highly structured

training programs for their professional accountants. The values associated with organizational policy and procedures manuals, together with additional guidance provided on the interpretation and application of accounting standards, represent the formal and espoused values proclaimed by the big 4 professional accountants (Windsor 2000, p.4). The heavily judgment focused accounting training programs used by the big 4 firms may further enhance the consistency in judgments (Lin et al. 2003, p.32). In contrast, the non-big 4 professional accountants may not have the necessary experience and resources that are readily available to the big 4 professional accountants (see Pratt and Beaulieu 1992, p.672 for further differences between the big and non-big 4 accounting firms).

The big 4 accounting firms are likely to devote greater time and resources to the IFRS implementation task. Evidence from countries that have recently adopted the IFRSs shows that the big 4 accounting firms have been found to be significantly more advanced in the implementation process than non-big 4 firms (Jones and Higgins 2006, p.10). Additionally, as noted earlier, in Fiji the non-big 4 professional accountants provide accounting services largely to medium and small-scale enterprises. Hence, the non-big 4 professional accountants may not have the experience in dealing with complex accounting standards and complex business issues. As accounting graduates, they would have been exposed to accounting standards in university studies, developing a basic understanding of the concepts and principles contained in various standards. However, from their formal education they do not possess a clear and complete knowledge in interpreting and applying accounting standards to real world cases, especially to cases which are complex.

Adequate interpretation of accounting standards that are complex would require special training and exposure to the standard. The required judgment would involve the applicability of each standard and the meaning and application of its provisions in various contexts (Mason and Gibbins 1991, p.23). It is therefore expected that the big 4 professional accountants may have the required training and resources to interpret and

adequately apply the IASs/IFRSs, whereas the non-big 4 professional accountants may face difficulty in interpreting and applying the IASs/IFRSs that require complex judgments. Based on this reasoning, the following hypotheses are formulated.

H3: There will be differences in judgments between big 4 and non-big 4 professional accountants when provided with 'old' accounting standards that require complex judgments.

H4: There will be differences in judgments between big 4 and non-big 4 professional accountants when provided with 'new' accounting standards that require complex judgments.

### 4.33.3 Interaction between Familiarity and Complexity (H5)

Prior research in psychology and auditing provides evidence of a possible interaction between familiarity and task complexity (Teger et al. 1970; Campbell and Gingrich 1986; Abdolmohammadi and Wright 1987; Bonner 1994; Asare and McDaniel 1996). For example, Asare and McDaniel (1996, p.139) found, in an audit context, that for a complex task, reviewers who are unfamiliar with the preparer are less effective at detecting conclusion errors than reviewers who are familiar with the preparer. However, they found that familiarity-based performance did not differ on the routine task. They also found that reviewers of familiar preparers were more effective on the complex relative to routine task, while a reverse effect was found for reviewers of unfamiliar preparers. A number of other studies have also found that individuals who are less familiar or experienced with a particular judgment task behave in a more cautious, risk averse fashion than those with greater task familiarity (see Anderson and Maletta 1994 for a review of these studies). Overall, prior research has found evidence of a possible interaction between familiarity and task complexity in various contexts. Consequently, it is expected that familiarity with the accounting standard and task complexity may interact to influence the interpretation and application of accounting standards. It is

argued that professional accountants who are familiar with the accounting standards will interpret and apply accounting standards in a consistent manner compared to those accountants who are less familiar with the standards.

Based on Asare and McDaniel's (1996) findings, it is also expected that professional accountants who are familiar with the accounting standard will be more effective on a complex task relative to a less complex task. On the other hand, professional accountants who are unfamiliar with the accounting standard may be reluctant to exercise their judgment. This expectation is based on the notion that being familiar with the standard allows the professional accountant to spend less time in referring to the contents of the standards and to focus more attention on exercising their professional judgment. That is, excessive pressure will be imposed on professional accountants when interpreting and applying accounting standards that are both 'new' and 'complex.' Thus, an ordinal interaction between familiarity and complexity of standards on judgments of professional accountants is expected. This interaction effect is depicted in figure 4.1.[6] Consequently, the following hypothesis is formulated.

H5: Familiarity with accounting standards and complexity in accounting standards will interact to influence the judgments of big 4 and non-big 4 professional accountants. The interaction will have the following effects:

a) The difference in judgments between big 4 and non-big 4 professional accountants will be greater if standards are 'new' (unfamiliar) when compared to standards that are 'old' (familiar).
b) The difference in judgments between big 4 and non-big 4 professional accountants will be greater if standards are 'complex' when compared to standards that are less complex.

[6] This expectation is consistent with prior studies. For example, in an audit context Asare and McDaniel (1996, p.146) have predicted a similar interaction effect between familiarity and task complexity.

[Insert Figure 4.1 here]

The following section discusses the research instrument, procedure and the participants involved in this study.

## 4.40 RESEARCH METHOD

### 4.41 Subjects

Data to test the hypotheses were collected using a survey questionnaire administered on professional accountants from both the big and non-big 4 accounting firms in Fiji. The survey was conducted as part of the professional development training program of the Fiji Institute of Accountants in 2004. The respondents chosen held professional accounting qualifications and were members of the institute. Therefore, in all cases the respondents had been exposed to the IASs/IFRSs, though their knowledge and experiences varied. All participants were geographically located in and around Suva and Lautoka, the two major commercial centers within Fiji. A total of 135 participants took part in the survey, wherein 60 respondents were from the big 4 accounting firms and 75 respondents were from non-big 4 accounting firms.

### 4.42 Tasks

The research instrument was developed with extensive consultation with accounting academics of the local university (the University of the South Pacific) and in light of the issues in accounting standards that required the exercise of professional judgments. The experiment was pre-tested with fifteen accounting academics from the University of the South Pacific and five professional accountants. Problems with the research instrument were identified and rectified to improve the understandability and readability.

To test all the five hypotheses necessitated the use of four separate scenarios, where two scenarios required the use of 'old' standards to make their judgments and the other two scenarios required the use of 'new' standards. To preserve internal validity, four scenarios were used with the following combinations; 'old standard-simple and less complex judgment,' 'new standard-simple and less complex judgment,' 'old standard-complex judgment,' and 'new standard-complex judgment.' Each scenario required a judgment on how a particular issue should be accounted for in an entity's financial report. For each scenario an extract of a conversation between two accountants was provided, in which one accountant stated that a certain accounting treatment should be used and the second accountant was of the view that a different treatment should be used. The subjects were asked to provide a judgment on the matter by providing a response on a five-point Likert scale (1 to 5; where 5 denoted 'strongly agree,' 4 denoted 'agree,' 3 denoted 'not clear preference for either treatment,' 2 denoted 'disagree,' and 1 denoted 'strongly disagree').

'Complexity' was influenced by yoking difficulty levels in the assigned task. Specifically, task complexity was operationalized by both drawing scenarios from accounting standards that contained uncertainty expressions and varying the number of relevant principles (paragraphs) in the accounting standard that the professional accountant had to refer to and apply in deciding the appropriate form of disclosure. All the four scenarios required the exercise of professional judgment, where participants had to interpret and apply selected principles (containing uncertainty expressions) in the relevant accounting standards. For example, a scenario drawing on International Accounting Standard (IAS) 12 *Accounting for Income Tax* required interpretation of the words '*beyond any reasonable doubt*' (paragraph 17) and '*virtually certain*' (paragraph 18). Additionally, for complex judgments participants had to interpret and apply a greater number of relevant paragraphs (and uncertainty expressions) from an accounting standard when compared to a simple and less complex judgment. For example, in a simple and less complex scenario based on IAS 12, only paragraphs 17 and 18 had to be interpreted and applied, whereas in a complex scenario based on IAS 38 *Intangible*

*Assets*, a distinction between research phase and development phase had to be determined which required the interpretation and application of paragraphs 42–50.[7]

The scenarios that required simple and less complex judgments were based on Fiji Accounting Standard (FAS) 23 *Borrowing Cost* ('old' standard) and IAS 12 (revised) *Accounting for Income Tax* ('new' standard). The first scenario was based on FAS 23, which required the judgment on whether to capitalize or expense the interest. The scenario related to the treatment of interest on a loan that had been raised to finance a project in part, specifically, to decide whether it had to be expensed with the project becoming partially operational. The second scenario, based on IAS 12, required the judgment on recognition and carrying forward of a deferred tax asset. Specifically, judgment was required about whether a deferred tax asset should be written down under changed business circumstances.

The other two scenarios that required complex judgments were based on FAS 22 *Business Combinations* ('old' standard) and IAS 38 *Intangible Assets* ('new' standard). The third scenario, based on FAS 22, required the judgment on changing the established amortization schedule of goodwill, where there was a change in business circumstances that may require the need to accelerate the write-down of assets. The fourth scenario, based on IAS 38, required the respondents to exercise their judgment on expensing or capitalizing the development costs. Judgment was required on whether a business activity constituted development rather than research and could therefore be capitalized. The test instrument is included in Appendix 1.

[7] This approach is consistent with some prior research. For example, Payne (1976) in analyzing decision makers' information search patterns and verbal protocol demonstrated that the information processing leading to a preferential choice varies as a function of task complexity where the most important determinant of complexity examined was clearly the number of alternatives available. The results showed that "when faced with a two-alternative choice problem, subjects employed decision strategies which involved searching the same amount of information on each alternative... In contrast, when faced with a more complex decision task, either 6 or 12 alternatives, subjects employed decision strategies which resulted in a variable amount of information search across alternatives" (p.384).

### 4.43 Procedure

It was important to ensure that all respondents received the same instruction and background information, and in the same format. All the relevant instructions were provided in a cover letter or prior to each of the sections. The research instrument consisted of two sections. The first section required respondents to provide demographic data such as level of formal education, gender, ethnicity (culture) and employer details. The second section consisted of four scenarios, based on disguised Fijian examples of cases where the exercise of professional judgment was required. The scenarios are therefore representative of the types of events and disclosures professional accountants are likely to encounter in practice. A scenario approach was selected because it provides a more realistic context for the respondents to exercise their judgment (Dane 1990; Brownell 1995). Additionally, because of the practical implication associated with professional judgment research, the study was conducted in a supervised setting in an attempt to increase the validity of the results. It was emphasized to respondents that each scenario should be treated independently. The scenarios were provided in random order and as the respondents had to complete the survey in a supervised setting, there was no scope for participants to confer with colleagues.

In all the four scenarios, respondents were provided with the relevant passages in extant accounting standards to assist them in making their judgments. They were also allowed to refer to any other accounting standards if they felt that it would assist them in making their judgments. The complete sets of standards were made available to the respondents on their request. Respondents were invited to provide a further explanation of how they formed their judgments for each of the scenarios. This explanation acted as a filtering device as any response that indicated a lack of understanding of the scenarios provided was to be considered of suspect validity and to be discarded. The results obtained were then statistically analyzed where differences in judgments between big 4 and non-big 4 professional accountants were shown using between-subjects univariate analysis of variance (SPSS Univariate Analysis).

## 4.50 RESULTS AND DISCUSSION

Of 135 respondents that participated in the experiment, the usable responses for the respective scenarios were as follows: Scenario 1 had 117 usable responses (48 from the big 4 and 69 from non-big 4 accounting firms); Scenario 2 had 116 usable responses (47 from the big 4 and 69 from non-big 4 accounting firms); Scenario 3 had 119 usable responses (48 from the big 4 and 71 from non-big 4 accounting firms); and Scenario 4 had 118 usable responses (47 from the big 4 and 71 from non-big 4 accounting firms). A brief summary of the demographic details of respondents is as follows.

The mean age of the respondents was 29.3 years, and on average, the level of formal education attained was 16.5 years. Two-thirds of the respondents were males and one-third were females. Of the respondents, 53% were Indo-Fijians, 26% were ethnic Fijians and the remainder were classified "Others."[8] The demographic data of the respondents are reported in table 4.1.

[Insert Table 4.1 here]

For subsequent analysis, any response that indicated a lack of understanding of the scenarios provided was considered of suspect validity and was discarded from the data set. The responses of the big 4 and non-big 4 professional accountants by categories for each of the scenarios are provided in table 4.2a and b, and the descriptive statistics for each of the scenarios are provided in table 4.3.

[Insert Table 4.2a & b and Table 4.3 here]

The first step in the analysis was to test for differences in the judgments of professional accountants with variables other than the big 4 and non-big 4 affiliations. Recall that

[8] The remaining 21% respondents were from minority ethnic groupings, namely Chinese, Caucasian and people of mixed race.

studies assessing the judgments of professional accountants have shown that there could be other variables affecting the judgments of accountants, such as level of formal education, age, gender and ethnicity (culture). Analyses of these variables showed that the level of formal education, age, gender and ethnicity (culture) did not influence the judgments of professional accountants (at $p < 0.05$). Additional results of this study are provided below.

### 4.51 Simple and Less Complex Judgments (H1 and H2)

For scenario 1, between-subjects univariate analysis of variance shows that there are no significant differences in the judgments of the big 4 and non-big 4 professional accountants when provided with 'old' accounting standards that require simple and less complex judgments ($p = 0.624$). In the case of scenario 2, between-subjects univariate analysis of variance shows that there are no significant differences in the judgments of the big 4 and non-big 4 professional accountants when provided with 'new' accounting standards that require simple and less complex judgments ($p = 0.649$). These results provide support for both H1 and H2.

[Insert Table 4.4 here]

### 4.52 Complex Judgments (H3 and H4)

In the case of scenario 3, between-subjects univariate analysis of variance shows that there are no significant differences in the judgments of the big 4 and non-big 4 professional accountants when provided with 'old' accounting standards that require complex judgments ($p = 0.563$). Importantly, for scenario 4, between-subjects univariate analysis of variance shows that there are significant differences in the judgments of the big 4 and non-big 4 professional accountants when provided with 'new' accounting standards that require complex judgments ($p = 0.045$). Therefore, the results refute H3 and provide support for H4.

[Insert Table 4.5 here]

Additionally, follow up nonparametric Mann-Whitney U tests also showed that there are significant differences in the judgments of the big 4 and non-big 4 professional accountants when provided with 'new' accounting standards that require complex judgments ($p = 0.050$). In the other three scenarios, no significant differences in the judgments of the big 4 and non-big 4 professional accountants were found.

### 4.53 Interaction between Familiarity and Complexity (H5)

The results also provide support for H5. Between-subjects univariate analysis of variance shows that both familiarity with the accounting standards ($p = 0.013$) and complexity in accounting standards ($p = 0.012$) have a significant effect on the judgments of the big 4 and non-big 4 professional accountants. Additionally, results show that both familiarity with and complexity in accounting standards interact to have a significant effect on the judgments of the big 4 and non-big 4 professional accountants ($p = 0.000$). These results reinforce the argument made earlier that an interaction exists between familiarity and complexity of accounting standards on judgments of professional accountants.

[Insert Table 4.6a & b and Figure 4.2 here]

The results also show that the differences in the judgments of the big 4 and non-big 4 professional accountants are greater if standards are 'new' (unfamiliar) when compared to standards that are 'old' (familiar). Similarly, the results show that differences in the judgments of the big 4 and non-big 4 professional accountants are greater if standards are 'complex' when compared to standards that are less complex. The results support the argument that if accounting standards are familiar professional accountants will interpret and apply them in a consistent manner when compared to accounting standards that are unfamiliar. Similarly, if accounting standards are less complex, professional accountants

will interpret and apply them in a consistent manner when compared to accounting standards that are complex. Hence, excessive pressure is imposed on professional accountants when interpreting and applying accounting standards that are both 'new' and 'complex.'

[Insert Figure 4.3a & b here]

Additionally, the responses of the big 4 and non-big 4 professional accountants by categories for each of the scenarios shows that the big 4 accountants are more comfortable in exercising their judgments (see tables 4.2a & b). For example, on average in three of the four scenarios, non-big 4 professional accountants had a higher percentage of response 3 on the Likert scale (which denotes 'not clear preference for either treatment'). As in each of the given scenarios there were only two possible disclosure options, selecting 3 on the Likert scale shows that these professional accountants were reluctant to exercise their judgments. Additionally, on average in all the four scenarios the big 4 professional accountants had a greater tendency to 'Strongly Disagree' (response 1) or 'Disagree' (response 2) with the treatment given in the case when compared to non-big 4 accountants. On the other hand, in both the 'complex' scenarios (scenarios 3 and 4) a larger proportion of non-big 4 professional accountants had chosen to 'Strongly Agree' (response 5) or 'Agree' (response 4) with the treatment given in the case when compared to the big 4 accountants. This also reinforces the argument that the big 4 professional accountants are more comfortable in exercising their judgment when compared to non-big 4 accountants.

## 4.60 CONCLUSIONS AND IMPLICATIONS

The goal of principles-based standards is to provide the flexibility to deal with different situations, where professional accountants have to assume more responsibility for making judgments. As the IASB is issuing 'new' and 'complex' accounting standards, and replacing previous rules in standards with principles, accountants must efficiently

acquire the expertise to exercise their professional judgments. Both within-country and between-country consistency in judgments of professional accountants will serve the ultimate aim of the convergence of accounting standards, namely, to produce comparable accounting information. However, it is expected that a certain degree of variation among the judgments of professional accountants will exist and has to be allowed (Nobes 1998, p.166). To this end, it is an important challenge to reduce this variability in the judgments of professional accountants and achieve greater consistency. The IASB and the standard setters of countries that are adopting the IASs/IFRSs should not assume that professional accountants will interpret and apply the IASs/IFRSs in a consistent manner. It is a distinct possibility, however, that there may be significant differences in judgments of professional accountants that may impair the comparability of financial information. This study addresses this important question: whether the adoption of IASs/IFRSs will result in comparable financial reporting across borders. Using a sample of professional accountants from Fiji, the objective was to test whether there are differences in the judgments between the big 4 and non-big 4 professional accountants when interpreting and applying selected IASs/IFRSs.

An important result of this study is that significant differences in judgments between professional accountants exist, even within-countries, if standards are 'new' and require complex judgments. Specifically, the results show that there were no significant differences in the judgments of the big 4 and non-big 4 professional accountants when provided with both 'old' and 'new' accounting standards that require simple and less complex judgments. Moreover, there were no significant differences in the judgments of the big 4 and non-big 4 professional accountants when provided with 'old' accounting standards that require complex judgments. However, the results show that there were significant differences in the judgments of the big 4 and non-big 4 professional accountants when provided with 'new' accounting standards that require complex judgments. This result makes intuitive sense in suggesting that complex judgments simply require more effort when compared to simple and less complex judgments, and the exercise of judgment is further complicated when the standard is 'new.'

The results of this study further show that both familiarity with the accounting standards and complexity in accounting standards have a significant effect on the judgments of the big 4 and non-big 4 professional accountants. Additionally, the results show that there is an interaction between the familiarity and complexity of accounting standards on the judgments of professional accountants. As expected, the difference in judgments of the big 4 and non-big 4 professional accountants were found to be greater if standards are 'new' (unfamiliar) when compared to standards that are 'old' (familiar). Similarly, the difference in judgments of the big 4 and non-big 4 professional accountants were found to be greater if standards are 'complex' when compared to standards that are less complex.

This study underlines the need to clarify the qualities that make an accounting standard complex and to consider how these qualities hinder the judgments of professional accountants. For example, inconsistent judgments may be due to the use of 'uncertainty expressions' or a lack of clear principles in the standards. Though these forms of complexity are related and contribute to the overall complexity in accounting standards, the nature of these relationships are still to be explicated. While the tasks used in this study implicitly derived their complexity by drawing on scenarios from accounting standards that contained uncertainty expressions and increasing the number of principles used, other dimensions of complexity could have been considered.[9] Thus, given the various related dimensions of complexity, future studies in this area can usefully consider the likely connections between various dimensions of complexity and its influence on the judgments of professional accountants.

This study has broadened the scope of the literature on professional accountants' judgment. Prior studies have generally ignored the impact of a 'new' and 'complex' set of accounting standards on the judgments of professional accountants. An important implication of the results is that it would be premature for the IASB and standard setters

[9] This study has operationalized only two attributes of task complexity. However, task complexity has a number of other dimensions such as intercorrelations, reliabilities and validities of cues (see Wood 1986; Campbell 1988; Bonner 1994; O'Donnell et al. 2005).

of countries adopting the IASs/IFRSs to assume that adopting IASs/IFRSs will lead to comparable financial reporting across countries. The results of this study clearly imply that consistency in judgment of professional accountants is difficult to attain even within a country, making it an important factor to consider in the convergence process. Adequate attention should be given to institutional differences among countries, more so to the differences in professional accountants' judgments. This is important as those differences would necessarily result in different decisions being made by professional accountants while applying IASs/IFRSs, eventually undermining the whole purpose of convergence.

This study also has further implications for the process of convergence of accounting standards, showing that it is not a case of 'flicking a switch' to comply with IASs/IFRSs (Schlesinger 2002, p.1). The implementation and enforcement of principles-based IASs/IFRSs may be daunting because they necessarily require the joint effort of regulators and accountants to apply professional expertise and judgments to achieve consistent financial reporting (AAA Financial Accounting Standards Committee 2003, p.81). The Fiji Institute of Accountants, being the only enforcement agency for accounting and financial reporting in Fiji, like in many other developing countries, has limited resources to issue detailed guidance and training on the interpretation and application of the IASs/IFRSs. Additionally, with limited resources to develop relevant training programs, particularly for complex and new IFRSs, the process of adopting the IASs/IFRSs certainly requires a time lag and has to be implemented in a gradual manner. If accounting standards are implemented in a rush, they may not be interpreted and applied in a consistent manner. As this study shows, there are significant differences in the judgments of professional accountants if standards are 'new' and require complex judgments. It is evident that recent standards issued by the IASB are complex and require the exercise of greater judgment than the earlier standards. Therefore, professional accountants require relevant training and a reasonable time frame to be able to apply these standards in a consistent manner.

While international convergence of accounting standards may be a laudable objective, accounting regulators need to pay greater attention to the role of various contextual factors in the convergence process. The findings in this study further support the evidence that similarities in formal education and training may lead to a maturation process wherein differences in judgments of professional accountants may also converge (Welton and Davis 1990; Patel and Psaros 2000). It is evident that there is a relentless push for the convergence of accounting standards and the rate of change in the IASB standard setting arena is significant. There are numerous revisions to the existing IASs and new IFRSs and Interpretations are issued quite frequently. To this end, it is a major exercise, especially for developing economies such as Fiji, to cope with the international developments. Further research on issues relating to convergence of accounting standards with specific reference to developing economies is required. Also needed is an investigation on the specific ways of improving the judgments of professional accountants.

Some limitations of this study need to be recognized. First, it has relied on prior studies to support the supposition that organizational cultures of big multinational accounting firms are homogeneous. This was also the assumption relied on by others, including Chow et al. (2002), for example, and is defensible as numerous studies have shown empirical evidence of this. Nevertheless, research on this issue, especially in the context of developing economies, would usefully be part of future research. Second, while the scenarios used in this study are developed depicting real world examples and are representative of the types of decisions professional accountants encounter in practice, they cannot represent all possible cases. Third, this paper has used only one scenario to capture each condition which limits the generalizability of the results. Therefore, future studies may investigate specifically the impact of recently introduced complex IFRSs on the professional accountants' judgment in various contexts. Further implications and limitations of this study are outlined in Chapter 6.

**Figure 4.1: Hypothesized Effects of Familiarity with Accounting Standards and Complexity in Accounting Standards on Judgments of Big 4 and Non-big 4 Professional Accountants**

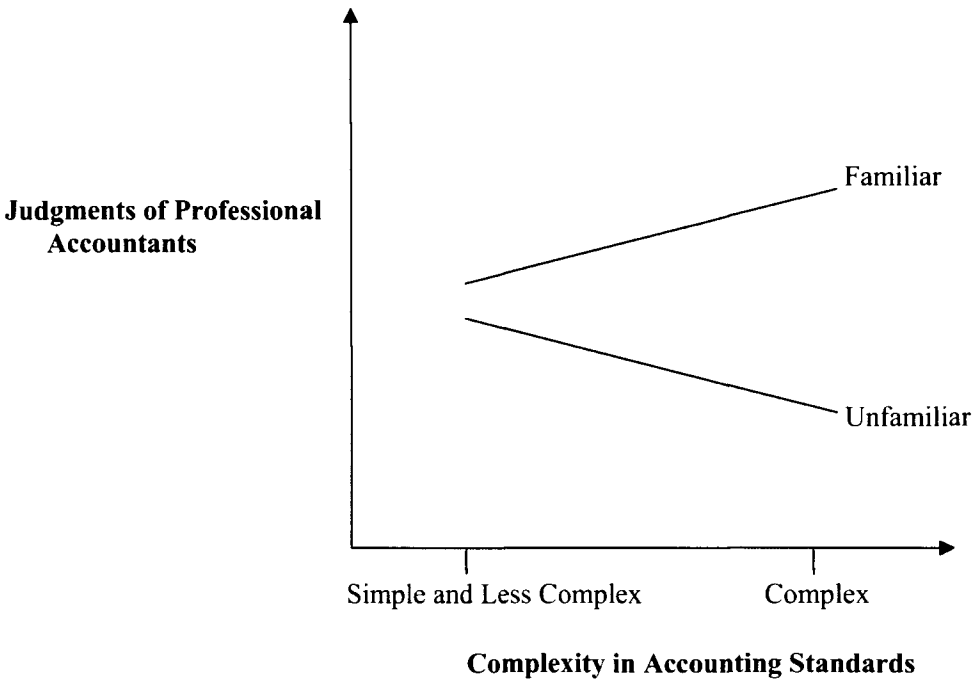

**Figure 4.2: Effects of Familiarity with the Accounting Standards and Complexity in Accounting Standards on Judgments of Professional Accountants**

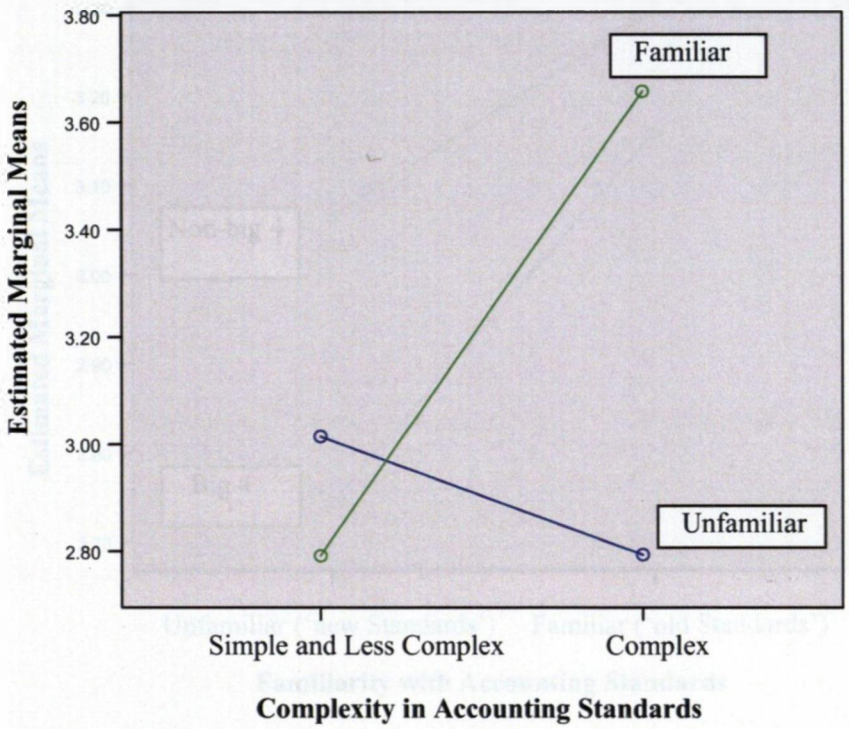

**Figure 4.3a: Effects of Familiarity with Accounting Standards on Judgments of Big 4 and Non-big 4 Professional Accountants**

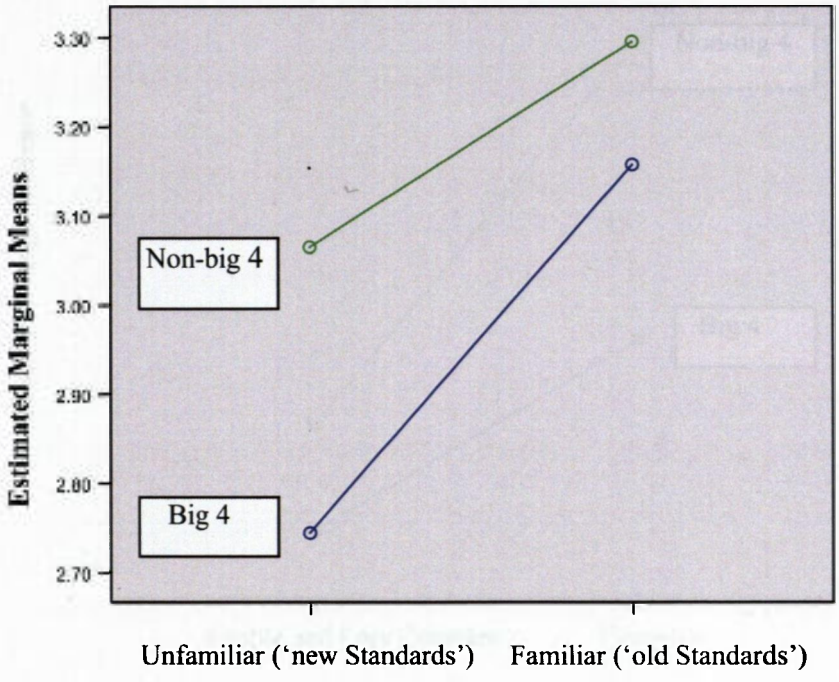

**Figure 4.3b: Effects of Complexity in Accounting Standards on Judgments of Big 4 and Non-big 4 Professional Accountants**

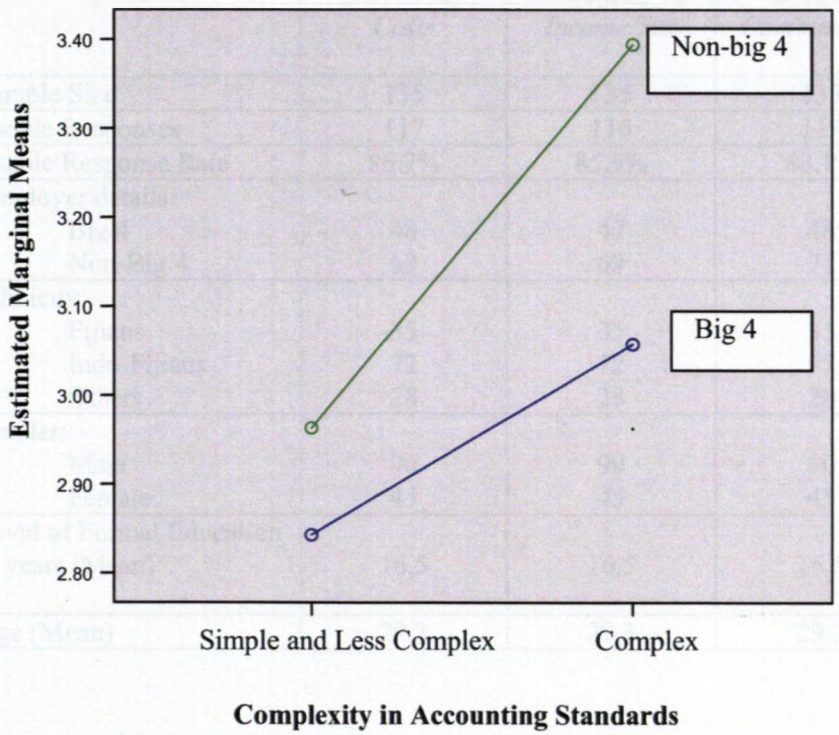

**Table 4.1: Demographic Data of the Respondents**

| **Demographic Data** | **Scenario 1** FAS 23 *Borrowing Costs* | **Scenario 2** IAS 12 *Accounting for Income Tax* | **Scenario 3** FAS 22 *Business Combinations* | **Scenario 4** IAS 38 *Intangible Assets* |
|---|---|---|---|---|
| Sample Size | 135 | 135 | 135 | 135 |
| Usable Responses | 117 | 116 | 119 | 118 |
| Usable Response Rate | 86.7% | 85.9% | 88.1% | 87.4% |
| Employer details: | | | | |
| Big 4 | 48 | 47 | 48 | 47 |
| Non-Big 4 | 69 | 69 | 71 | 71 |
| Ethnicity: | | | | |
| Fijians | 35 | 35 | 35 | 35 |
| Indo-Fijians | 72 | 72 | 72 | 72 |
| Others | 28 | 28 | 28 | 28 |
| Gender: | | | | |
| Male | 90 | 90 | 90 | 90 |
| Female | 45 | 45 | 45 | 45 |
| Level of Formal Education in years (Mean) | 16.5 | 16.5 | 16.5 | 16.5 |
| Age (Mean) | 29.3 | 29.3 | 29.3 | 29.3 |

**Table 4.2a: Responses of Professional Accountants by Categories for each of the Scenarios – Big 4 Professional Accountants**

| Scenarios | Big 4 Professional Accountants | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Responses | | | | | |
| | | Strongly Agree | Agree | Not Clear Preference | Disagree | Strongly Disagree | |
| | | **5** | **4** | **3** | **2** | **1** | |
| Scenario 1: FAS 23 *Borrowing Costs* | Frequency | 3 | 16 | 3 | 17 | 9 | **48** |
| | Percentage | 6.3% | 33.3% | 6.3% | 35.4% | 18.8% | **100%** |
| Scenario 2: IAS 12 *Accounting for Income Tax* | Frequency | 6 | 16 | 2 | 16 | 7 | **47** |
| | Percentage | 12.8% | 34% | 4.3% | 34% | 14.9% | **100%** |
| Scenario 3: FAS 22 *Business Combinations* | Frequency | 15 | 18 | 1 | 8 | 6 | **48** |
| | Percentage | 31.3% | 37.5% | 2% | 16.7% | 12.5% | **100%** |
| Scenario 4: IAS 38 *Intangible Assets* | Frequency | 5 | 10 | 2 | 20 | 10 | **47** |
| | Percentage | 10.6% | 21.3% | 4.3% | 42.6% | 21.3% | **100%** |

**Table 4.2b: Responses of Professional Accountants by Categories for each of the Scenarios – Non-big 4 Professional Accountants**

| Scenarios | Non-big 4 Professional Accountants | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Responses | | | | | |
| | | Strongly Agree | Agree | Not Clear Preference | Disagree | Strongly Disagree | |
| | | **5** | **4** | **3** | **2** | **1** | |
| Scenario 1: FAS 23 *Borrowing Costs* | Frequency | 12 | 14 | 9 | 20 | 14 | **69** |
| | Percentage | 17.4% | 20.3% | 13% | 29% | 20.3% | **100%** |
| Scenario 2: IAS 12 *Accounting for Income Tax* | Frequency | 11 | 20 | 10 | 19 | 9 | **69** |
| | Percentage | 15.9% | 29% | 14.5% | 27.5% | 13% | **100%** |
| Scenario 3: FAS 22 *Business Combinations* | Frequency | 25 | 27 | 1 | 11 | 7 | **71** |
| | Percentage | 35.2% | 38% | 1% | 15.5% | 10% | **100%** |
| Scenario 4: IAS 38 *Intangible Assets* | Frequency | 12 | 21 | 8 | 19 | 11 | **71** |
| | Percentage | 16.9% | 29.6% | 11.3% | 26.8% | 15.5% | **100%** |

**Table 4.3: Descriptive Statistics for each of the Scenarios**

| Scenarios | n | Mean | Standard deviation | Min | Max |
|---|---|---|---|---|---|
| Scenario 1: FAS 23 *Borrowing Costs* | | | | | |
| Big 4 | 48 | 2.73 | 1.284 | 1 | 5 |
| Non-Big 4 | 69 | 2.86 | 1.417 | 1 | 5 |
| Scenario 2: IAS 12 *Accounting for Income Tax* | | | | | |
| Big 4 | 47 | 2.96 | 1.351 | 1 | 5 |
| Non-Big 4 | 69 | 3.07 | 1.321 | 1 | 5 |
| Scenario 3: FAS 22 *Business Combinations* | | | | | |
| Big 4 | 48 | 3.58 | 1.412 | 1 | 5 |
| Non-Big 4 | 71 | 3.73 | 1.352 | 1 | 5 |
| Scenario 4: IAS 38 *Intangible Assets* | | | | | |
| Big 4 | 47 | 2.53 | 1.381 | 1 | 5 |
| Non-Big 4 | 71 | 3.06 | 1.372 | 1 | 5 |

**Table 4.4: Tests of Between-Subjects Effects for Simple and Less Complex Judgments (Big 4 and Non-big 4 Professional Accountants)**

| Source | Df | Sum of Squares | Mean Square | F Ratio | Significance Level |
|---|---|---|---|---|---|
| Scenario 1: FAS 23 *Borrowing Costs* | | | | | |
| Big 4/Non-big 4 Professional Accountants | 1 | 0.449 | 0.449 | 0.241 | **0.624** |
| Intercept | 1 | 882.739 | 882.739 | 1967.146 | 0.014 |
| Scenario 2: IAS 12 *Accounting for Income Tax* | | | | | |
| Big 4/Non-big 4 Professional Accountants | 1 | 0.370 | 0.370 | 0.208 | **0.649** |
| Intercept | 1 | 1016.508 | 1016.508 | 2748.514 | 0.012 |

**Table 4.5: Tests of Between-Subjects Effects for Complex Judgments (Big 4 and Non-big 4 Professional Accountants)**

| Source | Df | Sum of Squares | Mean Square | F Ratio | Significance Level |
|---|---|---|---|---|---|
| Scenario 3: FAS 22 *Business Combinations* | | | | | |
| Big 4/Non-big 4 Professional Accountants | 1 | 0.636 | 0.636 | 0.336 | **0.563** |
| Intercept | 1 | 1532.737 | 1532.737 | 2408.723 | 0.013 |
| Scenario 4: IAS 38 *Intangible Assets* | | | | | |
| Big 4/Non-big 4 Professional Accountants | 1 | 7.777 | 7.777 | 4.111 | **0.045*** |
| Intercept | 1 | 883.133 | 883.133 | 113.550 | 0.060 |

* Significant at $p < 0.05$

**Table 4.6a: Descriptive Statistics of Familiarity with Accounting Standards, Complexity in Accounting Standards and Judgments of Big 4/Non-big 4 Professional Accountants**

| Familiarity | Complexity | Big 4/ Non-big 4 | Mean | Standard Deviation | N |
|---|---|---|---|---|---|
| Unfamiliar (IAS 12) | Less Complex | Big 4 | 2.9574 | 1.35064 | 47 |
| | | Non-big 4 | 3.0725 | 1.32086 | 69 |
| | | Total | 3.0259 | 1.32836 | 116 |
| (IAS 38) | Complex | Big 4 | 2.5319 | 1.38079 | 47 |
| | | Non-big 4 | 3.0563 | 1.37204 | 71 |
| | | Total | 2.8475 | 1.39368 | 118 |
| | Total | Big 4 | 2.7447 | 1.37517 | 94 |
| | | Non-big 4 | 3.0643 | 1.34223 | 140 |
| | | Total | 2.9359 | 1.36171 | 234 |
| Familiar (FAS 23) | Less Complex | Big 4 | 2.7292 | 1.28394 | 48 |
| | | Non-big 4 | 2.8551 | 1.41707 | 69 |
| | | Total | 2.8034 | 1.35976 | 117 |
| (FAS 22) | Complex | Big 4 | 3.5833 | 1.41170 | 48 |
| | | Non-big 4 | 3.7324 | 1.35180 | 71 |
| | | Total | 3.6723 | 1.37230 | 119 |
| | Total | Big 4 | 3.1563 | 1.40920 | 96 |
| | | Non-big 4 | 3.3000 | 1.44790 | 140 |
| | | Total | 3.2415 | 1.43101 | 236 |
| Total | Less Complex | Big 4 | 2.8421 | 1.31534 | 95 |
| | | Non-big 4 | 2.9638 | 1.36916 | 138 |
| | | Total | 2.9142 | 1.34594 | 233 |
| | Complex | Big 4 | 3.0632 | 1.48618 | 95 |
| | | Non-big 4 | 3.3944 | 1.39887 | 142 |
| | | Total | 3.2616 | 1.44060 | 237 |
| | Total | Big 4 | 2.9526 | 1.40403 | 190 |
| | | Non-big 4 | 3.1821 | 1.39855 | 280 |
| | | Total | 3.0894 | 1.40381 | 470 |

**Table 4.6b: Tests of Between-Subjects Effects for Familiarity with Accounting Standards, Complexity in Accounting Standards and Judgments of Big 4/Non-big 4 Professional Accountants**

| Source | Df | Sum of Squares | Mean Square | F Ratio | Significance Level |
|---|---|---|---|---|---|
| Intercept | 1 | 4252.105 | 4252.105 | 2290.552 | 0.000 |
| Familiarity | 1 | 11.622 | 11.622 | 6.260 | **0.013**** |
| Complexity | 1 | 11.768 | 11.768 | 6.339 | **0.012**** |
| Big 4/Non-big 4 | 1 | 5.914 | 5.914 | 3.186 | 0.075* |
| Familiarity*Complexity | 1 | 33.405 | 33.405 | 17.995 | **0.000***** |
| Familiarity*Big 4/Non-big 4 | 1 | 0.940 | 0.940 | 0.506 | 0.477 |
| Complexity*Big 4/Non-big 4 | 1 | 1.324 | 1.324 | 0.713 | 0.399 |
| Familiarity*Complexity* Big 4/Non-big 4 | 1 | 1.055 | 1.055 | 0.568 | 0.451 |
| Total | 470 | 5410.000 | | | |

*Significant at $p < 0.10$
**Significant at $p < 0.05$
*** Significant at $p < 0.01$

# CHAPTER 5

## (Paper 4)

## Cultural and Non-Cultural Factors Affecting Judgments of Professional Accountants: A Comparative Study of Australia and Fiji

**ABSTRACT**

This study extends prior cross-cultural research by examining the effects of both cultural and non-cultural variables on the judgments of professional accountants. It examines the extent and the cause of differences in judgments between professional accountants in Australia and Fiji when interpreting and applying selected International Financial Reporting Standards (IFRSs). It is expected that the level of conservatism shared by accountants in a country will affect their interpretation of uncertainty expressions used in IFRSs to establish the threshold for recognition of various accounting elements. The results suggest that Fijian accountants exhibit stronger conservatism when compared to Australian accountants. This study provides empirical evidence to support the view that national culture has a significant effect on the manner in which professional accountants in a country interpret uncertainty expressions contained in the IFRSs. Furthermore, the results also provide strong support for the argument that national culture and organizational culture (big 4 and non-big 4 firm affiliation) interact to influence the judgments of professional accountants. Additional analyses carried out to identify the effects of other non-cultural factors on judgments of professional accountants in Australia and Fiji show that the professional accountants' perceived level of task complexity in each of the three scenarios used in this study have a significant effect on their judgments. An important implication of this study is that both cultural and non-cultural factors impact on the judgments of professional accountants.

**Keywords:**
Cultural factors
Non-cultural factors
Impact
Judgments
Professional accountants

## 5.10 INTRODUCTION

The primary goal of international accounting convergence is to enhance the comparability of financial statements across countries, and the adoption of IFRSs is seen as a means to achieve this objective (Doupnik and Riccio 2006, p.238). However, if IFRSs are not applied in a consistent manner then comparable financial reports will not result, even if countries have adopted a single set of globally acceptable accounting standards. To assume that IFRSs will be interpreted and applied consistently implies that factors such as culture and environmental differences amongst the nations are simplistic and easily effaced. However, there is a possibility that there may be significant differences in the judgments of professional accountants such that the resultant reporting outcomes may impair the comparability of financial information. It is expected that a certain degree of variation among the judgments of professional accountants, both within-country and between-country, will exist because of cultural and environmental differences amongst professional accountants. Therefore, it is important to investigate the extent to which these cultural and non-cultural factors (such as professional experience, age, gender, ethnicity and level of formal education) cause differences in judgments of professional accountants.

A number of cross-cultural studies have shown that culture is an important environmental factor influencing a country's accounting system (see Harrison and McKinnon 1999 and Doupnik and Richter 2003 for a review of these studies) and it also influences judgments of professional accountants in various contexts (for example, Schultz and Lopez 2001; Doupnik and Richter 2004; Doupnik and Riccio 2006). While examining the influence of culture on various accounting issues including management control systems design, standard setting practices and professional culture in accounting firms, most cross-cultural research to date has almost exclusively relied on the cultural values of Hofstede (1980) and Hofstede and Bond (1988) (Harrison and McKinnon

1999, p.502).[1] While these studies demonstrated the importance of culture, their insights may be limited because most of the studies neglected the impact of other non-cultural factors (Patel and Psaros 2000, p.315). As Baskerville (2003, p.1) pointed out, the outcome of the lack of reliance on other dimensions and the subsequent over-reliance on culture as a variable in cross-national studies in accounting research may lead to a misleading dependence on cultural indices as an explanatory variable of differences in accounting practices and behavior. A review of psychology, history and sociology literatures suggests that there is a complex relationship between cultural and non-cultural variables (see Baskerville 2003).

Apart from culture, there could be other non-cultural factors affecting the judgments of professional accountants. In his seminal work on the influence of culture on accounting, Gray (1988) suggested that accounting values are not only influenced by national cultural values but also by other institutional consequences, including level of education and professional developments in a country. Given the complexity of the relationships between cultural and non-cultural variables, it is important to identify the combination or interaction of these factors and its influence on professional judgments. Therefore, in contrast to other accounting judgment and decision making research undertaken to date, this study adopts a holistic approach which includes investigation of the relevant cultural as well as non-cultural factors influencing judgments of professional accountants. To develop and test the propositions, Australia and Fiji have been selected—they have similar accounting standards but very distinct cultural and non-cultural environments.

Recall (from Chapter 2) that Australia and Fiji have adopted the IFRSs as their national accounting standards in 2005 and 2002, respectively. Both these countries are former colonies of Britain, and as a consequence, are classified in the British-Commonwealth model of accounting development (Radebaugh and Gray 2002, p.40–41). Prior to the endorsement of the IFRSs by the Fiji Institute of Accountants (FIA), generally accepted

[1] Hofstede (1980) and Hofstede and Bond (1988) identified five societal values that can be used to describe a country's national culture: Uncertainty Avoidance, Individualism, Power Distance, Masculinity and Confucian dynamism, later referred to as Long-term Orientation.

accounting principles in Fiji were primarily based on the Australian financial reporting frameworks. Additionally, the head offices of the big 4 multinational accounting firms based in Australia closely monitor and provide highly structured training programs to train their professional accountants in Fiji. Although Australia and Fiji have common sets of financial reports, and close geographical, colonial and professional (accounting) links, they have two very distinct cultures. Moreover, these countries are also at different stages of economic development, Australia being a developed country and Fiji being a developing country. Such differences between these countries in terms of the cultural and non-cultural factors provide an appropriate research setting to undertake this study.[2]

Specifically, this study examines the judgment of professional accountants in Australia and Fiji with respect to the interpretation and application of uncertainty expressions contained in IFRSs. IFRSs contain uncertainty expressions in establishing criteria for the recognition, measurement, or disclosure of items, and professional accountants are required to attach meaning to those expressions (Doupnik and Richter 2003, p.15). Despite the omnipresence of uncertainty expressions in accounting standards, their interpretation tends to be highly variable. A number of studies have provided evidence that professional accountants do not interpret and apply uncertainty expressions contained in the accounting standards in a similar manner (Haried 1972 & 1973; Oliver 1974; Flamholtz and Cook 1978; Belkaoui 1980; Chesley 1986; Houghton 1988; Davidson and Chrisman 1994; Hronsky and Houghton 2001). This implies that the financial disclosure of similar uncertain economic events could vary simply because of differences in interpretation among accountants of the uncertainty expressions used in the accounting standards (Chesley 1986; Davidson and Chrisman 1994, p.188). A few cross-cultural studies have also shown that national culture can affect the numerical probability that professional accountants assign to uncertainty expressions used in IFRSs (Doupnik and Richter 2003 & 2004; and Doupnik and Riccio 2006). Similarly, differences in the interpretation of uncertainty expressions might lead to differences in

[2] Further discussion of the rationale for selecting Australia and Fiji to undertake this research is provided in Section 5.32.

the application of the recognition criteria in which those terms are used, resulting in different recognition decisions being made across countries (Doupnik and Richter 2004, p.16).

So far only two cross-cultural studies (Doupnik and Richter 2004; and Doupnik and Riccio 2006) have assessed the interpretation of 'in context' uncertainty expressions by providing professional accountants with the relevant excerpts from the accounting standards containing the uncertainty expression. However, so far no study has used 'practical' scenarios wherein professional accountants had to interpret these uncertainty expressions and make a judgment on how a particular issue should be accounted for in an entity's financial report. Simon (2002) argued that without a real-world context, the assessment of uncertainty expression is inevitably an artificial task, as in practice a context will always exist. Although simulated scenarios cannot easily be generalized to other contextual situations, they attempt to place the task in a 'near neutral' context so making the results more meaningful (Simon 2002, p.604). Therefore, as Doupnik and Riccio (2006, p.256) pointed out, financial reporting decisions based on uncertainty expressions are a function of both (1) interpretation of the uncertainty expression threshold, and (2) analysis of facts and circumstances to determine whether the probability threshold has been achieved while deciding the relevant financial disclosure. They further argued that both these factors could lead to different financial reporting decisions being made in similar facts and circumstances which may eventually reduce the cross-national comparability of financial reporting. However, prior research has focused only on the first factor of whether national culture affects interpretation of the uncertainty expression threshold (for example, Doupnik and Richter 2003 & 2004; and Doupnik and Riccio 2006). Motivated by the findings of these studies, the current study also investigates the other component of the decision process—whether the accounting values of conservatism systematically influence the manner in which professional accountants interpret uncertainty expressions and make a judgment on how a particular issue should be accounted for in an entity's financial report.

Using questionnaire surveys, the primary objective in this study is to empirically test the extent, and the cause, of differences (including both cultural and non-cultural variables) in judgments between professional accountants in Australia and Fiji when interpreting and applying selected IFRSs which contain uncertainty expressions. It is expected that the interpretation of uncertainty expressions contained in the IFRSs might be affected by both the context in which the uncertainty expressions are used and the degree of conservatism in the accounting profession of a country. Two generalized hypotheses are used to provide a basis for the examination of the influence of national culture on interpretation of uncertainty expressions contained in the accounting standards. In the first hypothesis the judgments of professional accountants are considered in a 'conceptual' context (interpretation of in-context uncertainty expressions contained in selected excerpts from IFRSs), and the second hypothesis considers the judgment of professional accountants in 'practical' situations on how a particular issue should be accounted for in an entity's financial report.

Additionally, the study also examines the influence of organizational culture on the judgments of professional accountants in Australia and Fiji. It is expected that the professional accountants in the big 4 firms in Australia and Fiji may interpret and apply accounting standards that require the exercise of professional judgments differently from those in non-big 4 firms. This study also examines the interaction between the effects of national culture and organizational culture in influencing the judgments of accountants. The influence of other variables including professional accountants' gender, age, their level of formal education, years of work experience, their level of familiarity with the equivalents of the IFRSs and their perceived level of complexity associated with the practical scenarios used in this study are also examined.

The empirical results of this study will provide evidence to understand the factors causing differences in the judgments of professional accountants when interpreting and applying a set of accounting standards. An understanding of these factors should facilitate the move towards the convergence of accounting practices, thereby improving

the quality and comparability of international accounting information, systems and procedures. The ultimate aim of convergence is to ensure that the financial reports of companies in different countries are comparable and if IFRSs are not applied in a consistent manner, then comparable financial reports will not result even if countries have adopted the IFRSs.

The remainder of the paper is organized as follows. Section two provides the background and outlines the contributions of this study. Section three discusses the relevant theory and formulates the research hypotheses. The fourth section outlines the research methods and this is followed by the results in section five. The final section is the conclusion and implications of this study.

## 5.20 BACKGROUND AND CONTRIBUTION

### 5.21 Background

In the accounting literature, the importance of culture, defined by Hofstede (1980, p.25) as "the collective programming of the mind which distinguishes the members of one group or society from those of another," has been widely recognized. Hofstede (1980) and Hofstede and Bond (1988) identified five societal values that can be used to describe a country's national culture: Uncertainty Avoidance, Individualism, Power Distance, Masculinity and Confucian dynamism, later referred to as Long-term Orientation (Hofstede and Hofstede 2005). The works of Harrison and McKinnon (1986) followed by Gray (1988) have proposed a methodological framework that incorporates culture to analyze changes in corporate financial reporting regulation at the national level. The cultural dimension is an essential element in the framework for understanding how social systems change, as culture influences the norms and values of such systems and explains and predicts the behavior of groups in their interactions within and across these systems (Harrison and McKinnon 1986, p.236).

Studies in accounting that operationalized professional culture were the first to examine its influence on various dependent variables. The dependent variables examined ranged from perceptions of external auditors' independence to various meanings given to accounting concepts and uncertainty expressions contained in the accounting standards. Many of the cross-cultural studies made little attempt to determine various dimensions of culture or what aspect of culture produced the claimed effects (see Patel and Psaros 2000, p.314). That is, culture has often been used as a synonym for 'nation' without any further theoretical grounding (Child 1981; Baskerville 2003). Some of the studies undertaken in the domain of accounting judgment and decision making research such as Oliver (1974), Chesley (1986), Harrison and Tomassini (1989), and Amer et al. (1995) lacked an explicit analysis of the specific dimensions of culture. Although such studies demonstrated that there is variability in interpretation of uncertainty expressions and accounting concepts amongst professional accountants (and various groups of financial information users), they were not able to explicitly identify the factors causing the difference. More recent studies such as Schultz and Lopez (2001), Doupnik and Richter (2003 & 2004), and Doupnik and Riccio (2006) have contributed to cross-cultural accounting research by showing that the interpretation of uncertainty expressions and accounting concepts are not value-free, and that culture is an important variable which may be causing the difference in judgments of professional accountants.

Culture is a complex, multi-faceted phenomenon (Child 1981; Jahoda 1984; McKinnon 1986; Patel 1999), and a more rigorous analysis and operationalization of the concept is necessary for further theoretical advances in cross-cultural research in accounting judgment. A very limited number of studies such as Bagranoff et al. (1994), Schultz and Lopez (2001), Doupnik and Richter (2004), and Doupnik and Riccio (2006) have considered culture as an independent variable in examining the judgments of professional accountants. Using Hofstede's cultural values, these studies attempted to provide empirical evidence to support Gray's (1988) framework. For example, Bagranoff et al. (1994) examined shared meaning among North American and Australian auditors for an important accounting concept—'extraordinary items.'

Significant differences in the cognitive structure within which meaning is held emerged for North American and Australian auditors. Results also showed subtle differences in classification decisions made by the two groups of auditors. Although the study did not explicate any of Hofstede's five cultural dimensions, it did show evidence that cross-cultural differences are likely to influence the meaning of accounting concepts. The study also suggested that future research in this domain should use detailed analyses of culture to explain the differences in the judgments of professional accountants from the two countries.

The other three studies, Schultz and Lopez (2001), Doupnik and Richter (2004), and Doupnik and Riccio (2006) did make an attempt to relate specific dimensions of culture to the judgments of professional accountants. These studies have raised the important and most relevant question to the current study, that is, whether a common set of accounting standards can be applied consistently across different cultures. Schultz and Lopez (2001) examined this issue by focusing on judgments made by accountants in France, Germany and the US. To facilitate a comparison across international boundaries, their experiment presented the accountants in the three countries with the same economic facts that are governed by similar financial reporting rules. Their findings show that even though similar facts and rules are given, judgments among the professional accountants from the three nations vary significantly. The findings also suggest that national culture, specifically uncertainty avoidance, impacts on the judgments of the professional accountants.

Doupnik and Richter (2004) and Doupnik and Riccio (2006) are the only two studies published to date that specifically examine the influence of culture on the interpretation and application of uncertainty expressions contained in accounting standards. Doupnik and Richter (2004) investigated the effect of national culture on the interpretation of 'in context' uncertainty expressions. They developed hypotheses on how the accounting value of conservatism, and the context in which probability expressions are used, will impact on accountants' interpretations of those expressions. Using US and German

professional accountants, they find significant differences between the two groups of accountants in the interpretation of several verbal probability expressions. Findings showed that in most cases, the German accountants are more conservative; for example, Germans exhibit a conservative bias in their interpretation of the word 'probable' when used across a variety of accounting contexts. The results suggest that culture influences the interpretation of uncertainty expressions used in accounting standards in a systematic and predictable manner.

Extending Doupnik and Richter's (2004) study, Doupnik and Riccio (2006) also hypothesized that accountants in a high secrecy country (Brazil) are likely to assign higher numerical probabilities to uncertainty expressions that establish the probability threshold for the disclosure of information than accountants in a low secrecy country (US). The results obtained partially supported the conservatism hypothesis. That is, their results supported the first conservatism hypothesis related to the recognition of income-increasing items, but no support was found for the second conservatism hypothesis related to income-decreasing items. However, the results strongly supported the hypothesis related to secrecy and disclosure (p.237). As the authors suggest, "the results of this study have negative implications for the consistency with which a common accounting standard might be applied across cultural areas, which could adversely affect the cross-national comparability of financial statements" (p.239).

The review of these cross-cultural studies shows that culture is an important environmental factor influencing judgments of professional accountants in various contexts. However, almost all these studies tend to oversimplify the nature of cultural values and dimensions, and neglect the associated non-cultural variables (such as professional experience, age, gender and level of formal education), which those cultural dimensions cannot capture. Therefore, to extend the accounting judgment and decision making research, this study examines the extent to which cultural and non-cultural factors (individually or interactively) affect the judgments of professional accountants when interpreting and applying uncertainty expressions within accounting standards.

## 5.22 Contribution

The present study can be distinguished from other cross-cultural studies undertaken in this domain of professional accountants' judgments in five ways. First, this study adds a new dimension and context to the literature on professional accountants' judgment. It examines professional accountants' judgments that are specifically grounded in IFRSs, and importantly, in the context of both a developed country (Australia) and a developing country (Fiji). This study not only considers the conceptual interpretation of uncertainty expressions used in IFRSs (such as Doupnik and Richter 2003 & 2004; and Doupnik and Riccio 2006) but examines the judgment of professional accountants in practical situations on how a particular issue should be accounted for in an entity's financial report. That is, it attempts to show how these uncertainties are interpreted and applied in providing a relevant financial disclosure. This study will therefore provide some meaningful evidence on how professional accountants interpret and apply accounting standards which contain uncertainty expressions in real world situations.

Second, it considers the impact of both the cultural and non-cultural factors that influence the judgments of professional accountants, something which has not been examined by prior studies. Previous studies have failed to consider the impact of other non-cultural variables in identifying the differences which may exist in the interpretation of uncertainty expressions. As previously noted, cross-cultural studies in accounting research have almost exclusively relied on national cultural indices as an explanatory variable of differences in accounting practices and judgments of professional accountants (Baskerville 2003, p.1). This was the reason why many studies reported conflicting results or were unable to explain what actually caused the variance in the judgments of professional accountants. Therefore, it is important to utilize Hofstede's (1980) and Hofstede and Bond's (1988) cultural dimensions to isolate the impact of the cultural and non-cultural factors influencing the judgments of professional accountants. This study also looks at the interaction effects, if any, of national culture and organizational culture in influencing judgments of accountants. By including a wider

spectrum of variables than has been considered individually by prior researchers, this study provides a better explanation of the factors causing differences in the judgments of professional accountants while interpreting and applying a set of accounting standards.

Third, this study does not rely exclusively on cultural dimensions and draws from other disciplines such as history and sociology to identify the differences in terms of cultural and non-cultural factors between Australians and Fijians. Moreover, this study recognizes in addition to the importance of national culture, the cultural values of specific ethnic groups within a country. The data Hofstede used were obtained from surveys administered amongst employees of IBM and it is the ethnicity of those employees that affects their perceptions, attitudes and behavior (Baskerville 2003, p.8). Research in sociology and ethnography also reflects the depth of the diversity of human behavior across different ethnic groups. Similarly, Wildavsky (1989, p.71) pointed out that cultures are not countries, and there is generally more than one culture in a country at any particular point in time. Given that most contemporary societies are multicultural in nature, 'ethnicity' is an important dimension to be considered in cross-cultural accounting research. This study therefore restricts itself to Anglo-Celtics in the Australian sample of professional accountants and divides the sample in Fiji between two groups based on their ethnicity—ethnic Fijians and Indo-Fijians (referred to as Fijians collectively).

Fourth, this study formulates *a priori* directional hypotheses. A problem in a number of cross-cultural studies examined is the failure to formulate *a priori* directional hypotheses. Using earlier exploratory studies in cross-cultural research in accounting and relying on theoretical and empirical evidence from other disciplines, this study is able to formulate *a priori* directional hypotheses. Such an approach is more appropriate especially in the context of this study to show clear links between culture and its impact on the judgments of professional accountants.

Finally, to operationalize the concept of culture this study has used a theory-driven approach rather than a 'pick and choose' approach in selecting the relevant cultural dimensions. The pick and choose approach was widely adopted by a number of prior cross-cultural studies in accounting (see Chapter 3). Harrison and McKinnon (1999, p.489) argued that the pick and choose approach, and the theoretical omission of relevant cultural dimensions may be a partial explanation for some of the disparity which exists in the research findings of prior studies. Therefore, the choice (and the omission) of relevant cultural dimension(s) should be based on a theory-driven approach.[3]

## 5.30 THEORY AND HYPOTHESES DEVELOPMENT

### 5.31 Interpretation of 'Uncertainty Expressions'

Uncertainty expressions play an important role in the decision making processes in accounting. This is because accounting standards are 'incomplete' as they provide only necessary but not all the information for making professional decisions, and even necessary information is fraught with vagueness as the accounting standards contain uncertainty expressions (Brown et al. 1993, p.287). For the purpose of this study, 'uncertainty expression' is defined as a measure of the confidence that a particular individual has in the truth of a particular proposition (Savage 1972, p.3). The interpretation of uncertainty expressions contained in accounting standards has always been one of the most difficult problems facing professional accountants (Davidson and Chrisman 1994, p.187). Prior studies have not only shown evidence of the complexity faced in interpreting uncertainty expressions but have also documented the lack of comparability among companies with respect to their presentation in financial reports

[3] This study also overcomes a number of methodological limitations of prior cross-cultural studies, discussed under the Research Methods section.

(see Davidson and Chrisman 1994 and Doupnik and Richter 2003 for a review of these studies). For example, Davidson and Chrisman (1994, p.188–189) argued that:

> An uncertainty expression is considered to have a more precise meaning if it denotes a narrow range of probabilities to different individuals. The application of accounting standards in similar situations is less diverse, and consequently the comparability of financial statements is enhanced, when the uncertainty expressions used in the standards are as precise as possible.

Doupnik and Richter (2004), and Doupnik and Riccio (2006) reviewed earlier, have also provided evidence of a lack of comparability in the interpretation and application of uncertainty expressions contained in accounting standards.

Numerous studies in other disciplines including psychology have also examined the interpretation of uncertainty expressions in various contexts. These studies have consistently shown that significant variability exists in the interpretation and application of uncertainty expressions across individuals (see Pepper 1981 and Doupnik and Richter 2004 for a review of these studies).[4] Overall, prior accounting and non-accounting studies of uncertainty expressions indicate that uncertainty expressions are interpreted differently within and among professional groups—this can lead to different disclosure recommendations and reporting practices in the application of accounting standards (Laswad and Mak 1997, p.16).

### 5.31.1 The influence of 'Context' on Interpretation of Uncertainty Expressions

The interpretation of uncertainty expressions contained in accounting standards may depend on the context in which they are used. The importance of uniformity in the interpretation of uncertainty expressions in accounting standards is demonstrated by

[4] Brun and Teigen (1988) and Budescu and Wallsten (1990) also provide excellent reviews and evaluations of the empirical research on the interpretation of uncertainty expressions. Overall, they also conclude that there is a large variability in the interpretation and application of uncertainty expressions.

Amer et al. (1995) in the context of US Statement of Financial Standards (SFAS) No. 5: *Accounting for Contingencies* as follows:

> If the criteria are not interpreted uniformly across contexts [including litigation, expropriation of foreign assets, warranty liabilities and accounting for bad debts], contingencies of the same estimability, materiality, and subjective probability of loss could be considered *probable* in some contexts but not others, and thus afforded footnote disclosure in some contexts but accrued in others. Thus, the effect of context-dependent interpretations of the disclosure criteria on disclosure decisions could result in noncomparable disclosures across contexts, or inconsistent disclosures among periods in which irrelevant aspects of a particular context change. (p.26)

Flugstad and Windschitl (2003) suggest that an uncertainty expression given in isolation is often difficult to evaluate and therefore does not have strong affective or intuitive implications. This is because the interpretation of uncertainty expression is influenced by the context in which it is used. Therefore, "any context information that reduces the directional ambiguity of a forecaster's numeric estimate or enhances an audience's ability to meaningfully evaluate that numeric estimate relative to some standard will shape intuitive reactions" (Flugstad and Windschitl 2003, p.108). Similarly, while presenting the uncertainty expressions to their subjects 'in isolation,' Doupnik and Richter (2003) pointed out in their conclusions that it does not necessarily follow that the differences they find in the interpretations of uncertainty expressions 'in isolation' will lead to differences when those expressions are placed 'in context' (p.31). Simon (2002, p.604) also argued that the assessment of uncertainty expressions in a real-world context will provide a more meaningful result. Consequently, in this study 'in context' uncertainty expressions are used.

Professional accountants tend to process uncertainty expressions in a particular manner and revise judgments in light of new information according to linguistic rather than numerical principles (Zimmer 1983; Wallsten et al. 1986, p.572). Wallsten et al. (1986, p.572) made it clear that in instances such as a conversational situation, though meaning is sensitive to context, communication does not suffer as both speaker and listener share

common knowledge, which results in identical context effects for both of them. However, in accounting the groups of preparers, educators and users of financial reports may have different connotative meanings of accounting terms and concepts (Bagranoff et al. 1994; Davidson and Chrisman 1994).[5] This is because various groups of preparers and users communicating accounting information are likely to have different assumptions and knowledge which might affect their interpretation and understanding of uncertainty expressions used to establish the threshold for recognition of various accounting elements.

Tversky and Kahneman (1981) in their seminal article on framing (refers to the manner in which a decision setting is presented to a decision maker) demonstrated that the context in which uncertainty expressions are used and outcomes are presented would make a difference in its interpretation. For example, if a particular prospect is formulated (framed) in terms of success it is typically perceived by individuals as more attractive when compared to its complement, framed in terms of failure (Teigen and Brun 2003, p.54). Teigen and Brun (2003) used the following example to demonstrate the effect:

> A 70% probability of success sounds encouraging, not simply because it implies that the chance of success is higher than the risk of failure, but because the statement explicitly refers to a positive outcome. It is obviously a statement about success, not about failure. A 30% probability of failure is clearly less appealing, inviting us to contemplate the possibility of a negative, or unsuccessful outcome. (p.53–54)

Furthermore, *a priori* belief about the likelihood of the occurrence of the events being described will also impact on the interpretation of the uncertainty expression used. Smits and Hoorens (2005) used the following example to explain this:

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[5] Recall from Chapter 3 that for accounting terms and concepts, meaning has both denotative and connotative aspects. Bagranoff et al. (1994, p.36) pointed out that "denotative meaning is a term or concept's literal definition (for example, the denotative meaning of profit is the excess of revenues over expenses)" whereas "connotative meaning is the emotional aspect of meaning (the connotative meaning of profit might be that it is good, necessary, valuable, and so on)."

> Compare, for instance, "This winter, you will probably develop a common cold" to "This winter, you will probably develop a lung infection." Most people believe that common colds occur more frequently than lung infections. Therefore, the perceived a priori likelihood of developing a common cold is higher than the a priori likelihood of developing a lung infection. Consequently, when people are asked to estimate the numerical equivalent of the word *likely*, the average estimate tends to be higher when *likely* occurs in the context of a common cold than when it occurs in the context of a lung infection. (p.84)

Similarly, Flugstad and Windschitl (2003, p.109) argued that while on one hand context information that matches a priori associations in memory can yield assimilation effects, on the other hand context information that constitutes an immediate comparison standard can yield contrast effects.

The literature on interpretations of uncertainty expressions also suggests that terms such as 'very likely' and 'very unlikely' are not perceived as complementary (Lichtenstein and Newman 1967; Chesley 1986). Similarly, the theory on the lack of symmetry suggests that supposedly complementary words may not be complementary in their interpretation (Chesley 1986, p.181).

### 5.31.2 The Influence of Culture on Interpretation of Uncertainty Expressions

A number of prior studies have shown that both national and organizational culture can also impact on the interpretation of uncertainty expressions. The study of Phillips and Wright (1977) was the first to introduce the notion that national culture can influence the cognitive processes involved in the assessment of uncertainty expressions. They found that British people make finer discriminations in degrees of uncertainty expressions than do Chinese people. In a series of studies, Phillips and Wright consistently documented that British and Asian distinctions reflect fundamental cultural differences in how individuals interpret and understand uncertainty expressions.

Furthermore, Teigen and Brun (2003, p.55) argued that "individuals dominated by an optimistic attitude could be expected to favor positive terms when characterizing the chances of an attractive outcome, and negative terms when describing the chances of an aversive outcome... [while] a pessimistic attitude should lead to an opposite choice of terms." Their study showed that "positive phrases are rated to be more optimistic (when the target outcome is positive), and more correct, when the target outcome actually occurs, even in cases where positive and negative phrases are perceived to convey the same probabilities" (p.53). Schultz and Lopez (2001) also showed evidence that "accountants from countries high on uncertainty avoidance are more sensitive to framing effects than accountants from low-uncertainty avoidance countries" (p.273). In a similar manner, Doupnik and Richter (2004) and Doupnik and Riccio (2006) showed that professional accountants from a high conservatism country will tend to assign a higher (lower) numerical probability to uncertainty expressions that determine the threshold for the recognition of items that increase (decrease) income than accountants in a low conservatism country. At a minimum, the differences suggest that cross-national miscommunication about uncertainty expression is virtually guaranteed (Yates et al. 1989, p.169). Overall, the findings from these cross-cultural studies suggest that national culture influences the interpretation of uncertainty expressions used in accounting standards in a systematic and predictable manner.

Belkaoui (1980, p.362) suggested that the affiliation of users with different professional organizations with their distinct interaction networks may create different accounting language repertoires. That is, accountants from the big 4 and non-big 4 professional groups may use different linguistic codes because of different organizational constraints and objectives. This is because professional accountants in the big 4 firms would interact daily, share assumptions, working knowledge and values which may not exist in non-big 4 accounting firms (Tavana et al. 1997, p.134). Prior studies such as Soeters and Schreuder (1988), Pratt et al. (1993) and Chow et al. (2002) also provide evidence that there are similarities in the organizational cultures of the big 4 accounting firms. In addition, a number of studies have shown that judgments between the big 4 and non-big

4 professional accountants differ (see for example, Cushing and Loebbecke 1986; Manson et al. 1998; Windsor 2000; Lin et al. 2003; Patel 2003). Additionally, both accounting and non-accounting related studies investigating the interpretations of uncertainty expressions have found that the variability is lower in groups from homogenous backgrounds (see Brun and Teigen 1988 and Doupnik and Richter 2003 for a review of these studies). Therefore, organizational culture appears to be an important variable affecting how uncertainty expressions are interpreted and applied.

While interpreting uncertainty expressions contained in the IFRSs, there are no objectively correct interpretations and professional accountants have to exercise their own judgments in determining the appropriate form of financial disclosure. Therefore, it is expected that both the national and organizational culture will influence the interpretation of uncertainty expressions. It is also expected that national culture and organizational culture may interact to influence the judgments of professional accountants.

### 5.32 Cultural and Non-Cultural Differences between Australia and Fiji

In the context of this study, which involves the interpretation and application of uncertainty expressions, Uncertainty Avoidance appears to be the most relevant cultural dimension. The review of Hofstede's (1980) and Gray's (1988) model also supports the argument that Uncertainty Avoidance will be the dominant factor in driving judgments of professional accounting in interpreting uncertainty expressions. Using Hofstede's (1980) cultural framework, Gray (1988) identified four accounting values that can be used to describe a country's accounting subculture: conservatism, secrecy, professionalism and uniformity. Gray (1988) argued that the cultural value most closely related to conservatism is Uncertainty Avoidance, with Individualism and Masculinity being less influential. His analysis showed that Uncertainty Avoidance is positively correlated to conservatism. Similar correlations have also been shown by Perera (1989) and Perera and Mathews (1990). On the other hand, Gray (1988) found Individualism

and Masculinity to be negatively correlated to conservatism. Mixed results were reported by Perera (1989) and Perera and Mathews (1990) on the dimensions of Individualism and Masculinity. No such effect was determined for Power Distance by any of the researchers. Radebaugh and Gray (2002, p.47), incorporating Long-term Orientation into the analysis, showed that conservatism is also influenced by the societal value of Long-term Orientation.

Numerous other studies have established a link between Uncertainty Avoidance and differences in national accounting systems (Doupnik and Salter 1995; Salter and Niswander 1995; Zarzeski 1996; Doupnik and Richter 2003 & 2004). For example, Doupnik and Salter (1995) showed that Uncertainty Avoidance is the foremost Hofstede characteristic in explaining the diversity among countries' accounting measurement and disclosure practices. Additionally, Zarzeski (1996) reported that Uncertainty Avoidance is the most important of Hofstede's variables in explaining differences in disclosure practices. Doupnik and Richter (2004) showed that conservatism (driven by Uncertainty Avoidance) influences the interpretation of uncertainty expressions used in accounting standards in a systematic and predictable manner.

Finally, further evidence for the inclusion of the cultural dimensions of Uncertainty Avoidance, Individualism, Masculinity and Long-term Orientation, and exclusion of the Power Distance dimension, in the theory development and hypotheses formulation in this study is obtained from an analysis of the cultural indices reported. The indices of Australia as reported by Hofstede (1980) and Hofstede and Hofstede (2005), and those of ethnic Fijians and Indo-Fijians obtained from Chand and White (2006), on each of the four dimensions of Uncertainty Avoidance, Masculinity, Individualism and Long-term Orientation were as follows. The Uncertainty Avoidance indices reported by Hofstede (1980) were (on a range of 6 to 112 representing low to high): Australia 51, ethnic Fijians 62 and Indo-Fijians 57. The Masculinity/Femininity indices were (on a range of 5 to 95 representing Femininity to Masculinity): Australia 61, ethnic Fijians -4 and Indo-Fijians 12. The Individualism indices reported by Hofstede (1980) were (on a range

from 3 to 91 from low to high): Australia 90, ethnic Fijians 74 and Indo-Fijians 66. The Long-term Orientation indices reported by Hofstede and Hofstede (2005) were (on a range from 0 to 118 from short to long term): Australia 31, ethnic Fijians 39 and Indo-Fijians 34.[6]

Consequently, the fact that Australia and Fiji differ on the Uncertainty Avoidance, together with the Masculinity, Individualism and Long-term Orientation dimensions means that these dimensions are likely to be implicated in the cross-cultural comparisons in the current study. Fijians rank higher than the Australians on Uncertainty Avoidance, and lower on Individualism and Masculinity, both of which would indicate stronger conservatism among Fijian accountants. Fijians also rank higher on Long-term Orientation, which is consistent with stronger conservatism. In addition, the literature on the general context of the Fijian environment provides further support for arguing that the culture in Fiji is different to the Australian culture on Uncertainty Avoidance, Masculinity, Individualism and Long-term Orientation.

Historical and sociological literatures provide insights into those aspects of Australian culture that are particularly relevant to the weaker uncertainty avoidance, and Fijian culture that reflects stronger uncertainty avoidance. Historically, Australian society has demonstrated its ability to tolerate and absorb ethnic and cultural differences (Edgar et al. 1993, p.xiv). Since 1788, diverse waves of immigrants have interacted with each other. People of different backgrounds, cultures, education levels and values have come to Australia and lived together, with a low level of hostility and conflict (Patel 1999, p.111). Consequently, Australia has emerged as a society of enormous and rare cultural variety and despite examples of racial and ethnic prejudice and discrimination, it has not

[6] Although the relative ranks for Australia (except on Long-term Orientation) are based on indices developed in the 1970s and Fiji in 2006, the relative position of the two countries on these dimensions is unlikely to be different today. Hofstede (2001, p.34) states that "[c]ultures, especially national cultures, are extremely stable over time." Additionally, while Hofstede's analysis was based on IBM employees, studies such as Patel (1999) using professional accountants have also shown that Australia has weak uncertainty avoidance, is individualistic, masculine and a short-term oriented society.

suffered the divisions of European nations, or the strong religious differences that are common in some countries, such as Fiji.

There are two major ethnic cultures residing in Fiji—Melanesians (ethnic Fijians) and Indians (Indo-Fijians). In studying Fiji's inter-ethnic divide, authors such as Mayer (1963), Fisk (1970), Ali (1977 & 1980), Mamak (1978), Premdas (1978), Milne (1981), Norton (1990), and Vatanimoto-Mausio (1998) have commonly interpreted ethnic Fijian conservatism as a primordially-derived 'fear' of being 'overrun' by the Indo-Fijian population. As Vatanimoto-Mausio (1998) asserted, conservatism operates against forces of change, where conservatism in less developed nations highlights the 'opposition to change' or anti-modernization element but is defined as either 'nativism' or 'traditionalism.' Similarly, in a discussion of the idealization of the 'Pacific Way' movement, Lawson (1994, p.43) observed that "throughout the Pacific, appeals to a reified concept of 'tradition,' which incorporates kindred concepts such as culture, custom, ethnicity and identity have been common for some time." Watters (1969, p.2), who studied the socio-political characteristics and economic prospects of four Fijian villages, noted that "although Fijian society has changed greatly in a century and a half contact, it is still one of the most conservative societies in the South Pacific." Similarly Nayacakalou (1975) argued that:

> One of the most powerful reasons why they [the ethnic Fijians] have been wary of 'change' is the threat of Indian domination. As long as this threat remains, it will be difficult for them to wholly accept the idea of change even though they may be completely convinced of the necessity for it. For they hold the view that their only answer to the threat is unity among themselves and that the only way to preserve this unity is to rally behind their chiefs and the Fijian Administration, united by a common heritage of which they are proud. (p.138)

Lawson (1990) has observed that the simplistic presentation of these arguments avoids the more difficult issue of explaining precisely why the people in Fiji have apparently felt the need to defend this neo-traditional identity with such tenacity. She argued that it might be more accurate to say that many of the ethnic Fijian chiefs and conservative

leaders have felt a greater need because of national politics, such that they had to emphasize group solidarity in order to retain power (Lawson 1990). Similarly, in collaboration with a minority of Indo-Fijians, most Europeans, part-Europeans and Chinese joined the Alliance party (the mainstream post-independence ethnic Fijian party) and claimed that retention of ethnic representation would, by preserving the peace, guarantee increased foreign investment and expanding employment opportunities (Norton 1981). Hence, conservatism within the Fijian community generates an environment that limits uncertainty.

Additionally, Australia like many other Western countries is industrialized, capitalist, and guided by economic and political factors consistent with industrialization and capitalism (Goodnow et al. 1989, p.39). Australians place greater importance on individualism and self-independence. Hofstede's analysis for Australia also reflects the high level of individuality. The Individualism index for Australia is 90, the second highest score of any country in Hofstede's survey, behind the United States' ranking of 91. Individuality is reinforced in Australians' daily lives where people develop their individual motivations, skills and competence in ways best suited to them (Edgar et al. 1993, p.xiv). The primary objective in human development in Western nations such as Australia is the development of a 'competent self:' "a view of oneself as being effective, able to control one's own life and make one's own way in it, as opposed to feeling ineffectual, powerless, controlled by others and having to conform to rules one has no chance of changing" (Brewster-Smith 1968, p.161). In contrast, Fiji is an emerging economy which, together with the instability in the economy due to the political turmoil, has led to deep divisions between the ethnic Fijians and Indo-Fijians (US State Department Report – Fiji 2005). To this end, one of the major purposes of Fijian culture is the maintenance of harmonious interpersonal relationships within their community and acting in a manner appropriate to one's position in a hierarchical social order. Unlike the Fijian society, meritocracy (which suggests that the individual and not the individual's family or background is in control of one's destiny), forms the basis of Australian society (Edgar et al. 1993, p.180).

Both, the relevant features of Hofstede's cultural dimensions discussed earlier and the more holistic approach adopted in this study, which drew on relevant features of sociological and historical literatures, have established significant differences between Fijians in one cluster and Australians in another. These differences provide the basis for the use of Uncertainty Avoidance, Masculinity, Individualism and Long-term Orientation dimensions in the theory development and hypotheses formulation in the current study. However, the critical reason for the choice of the dimensions is their theoretical relevance to the issues in the study, and the theoretical irrelevance of the other dimension.

Interpreting Hofstede's cultural indices for Australia is not likely to be a problem because the major ethnic group in Australia is Anglo-Celtic. However, ethnic Fijians comprise approximately 57% of Fiji's total population and Indo-Fijians comprise about 38% of the population (Fiji Islands Bureau of Statistics 2007). In Australia, Anglo-Celtics comprise about 85% of the total population (Wikipedia 2008). Earlier it was noted that most of the studies assessing the impact of culture on shaping appropriate accounting practices and judgments have been criticized on the grounds that national and cultural identities have been implicitly assumed to be synonymous (see Baskerville 2003). This study overcomes this criticism by investigating the influence of culture on the interpretation and application of uncertainty expressions by professional accountants from Anglo-Celtics in Australia and two different ethnic groups in Fiji (ethnic Fijians and Indo-Fijians). The other ethnic groups in the two countries are excluded from the sample.

## 5.33 Hypotheses Formulation

### 5.33.1 Influence of National Culture on Judgments of Professional Accountants (H1 and H2)

Gray (1988) proposed a comprehensive model of accounting values (conservatism, secrecy, professionalism and uniformity) linked to Hofstede's (1980) societal values.

These four accounting values explain and determine the structure and practice of accounting, including measurement, disclosure, authority, and enforcement components of a country's accounting system (Salter and Niswander 1995, p.380). As already noted, while interpreting and applying uncertainty expressions in accounting standards, conservatism appears to be the most relevant characteristic, which is described as "a preference for a cautious approach to measurement" (Gray 1988, p.8). Gray (1988) argued that the cultural value most closely related to conservatism is uncertainty avoidance, with individualism and masculinity being less influential. He hypothesized:

> The higher a country ranks in terms of uncertainty avoidance and the lower it ranks in terms of individualism and masculinity then the more likely it is to rank highly in terms of conservatism. (Gray 1988, p.10)

Radebaugh and Gray (2002) extend Gray's (1988) model by incorporating Long-term Orientation. They suggest that conservatism is also influenced by the societal value of Long-term Orientation (p.47). That is, accountants in a country that rank higher in terms of Long-term Orientation are likely to be more conservative in applying financial reporting standards. Doupnik and Richter (2004) argued that Gray's (1988) hypothesis of conservatism is also applicable to the manner in which a country's accountants apply a set of accounting standards. Doupnik and Richter restated Gray's original (1988) hypothesis as:

> Accountants in a country that ranks higher in terms of uncertainty avoidance, and ranks lower in terms of individualism and masculinity, are likely to be more conservative in applying financial reporting standards. (p.7)

Both Doupnik and Richter (2004) and Doupnik and Riccio (2006) showed that the cultural values that exist in a country influence the accounting values held by accountants in that country, which in turn influence the manner in which accounting rules are applied.

IFRSs contain both the positively and negatively framed uncertainty expressions used to determine thresholds for the recognition of assets, revenues, profits, liabilities, expenses and losses. The uncertainty expression most commonly used is 'probable,' which is used in a variety of contexts dealing with the recognition of assets (IAS 12 *Income Taxes*), revenue (IAS 18 *Revenue*), revenues and expenses (IAS 11 *Construction Contracts*), liabilities (IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*) and losses (IAS 11 *Construction Contracts*) (Doupnik and Richter 2004, p.5). Other examples of uncertainty expressions used in IASs/IFRSs include likely, sufficient certainty, substantial, assurance, reasonable assurance, virtually certain, significant and remote which are again used in a number of different contexts. Therefore, while applying IFRSs professional accountants will be interpreting both positively and negatively framed uncertainty expressions. Prior psychology and accounting research has found considerable support for the propositions of prospect theory in explaining the impact of positive and negative framing of uncertainty expressions (see Schultz and Lopez 2001, and Doupnik and Richter 2003 for reviews). The following example demonstrates the effect:

> Consider a decision about whether or not to use an experimental vaccine to counter the effects of a mortal disease. The positive frame will state that the use of an experimental vaccine may save 50 percent of the people. The negative frame will state that use of an experimental vaccine will result in [the death of 50 percent of the people]. While both state the same probable outcome, research finds that subjects tend to resist using the vaccine (act more cautiously) when the outcome is framed negatively. (Schultz and Lopez 2001, p.278)

Findings also show that probabilities assigned to mirror image pairs such as 'probable' and 'improbable' do not sum to 100% and negatively framed expressions tend to be further away from the 50% midpoint than the related positive expressions (Doupnik and Richter 2003, p.16). Similarly, Sharp and Salter (1997) argued that the cultural value of uncertainty avoidance and negative (versus positive) framing will interact to accentuate the overweighting attributable solely to negative framing.

The premise of the current study is that conservatism shared by accountants in a country might affect their interpretation of uncertainty expressions used to establish the threshold for recognition of various accounting elements. Consistent with Doupnik and Richter (2004) and Doupnik and Riccio (2006), it is argued that accountants from a more conservative country would apply a higher probability threshold for the recognition of assets and items that increase income, and a lower probability threshold for the recognition of liabilities and items that decrease income. To test this proposition, professional accountants from Australia and Fiji have been selected as they are likely to differ significantly on the accounting value of conservatism. As noted earlier, Fijians rank substantially higher than the Australians on Uncertainty Avoidance and substantially lower on Individualism and Masculinity, both of which would indicate stronger conservatism among Fijian accountants. Fijians also rank marginally higher on Long-term Orientation, which is consistent with stronger conservatism. Therefore, based on the implications from Gray (1988) and Radebaugh and Gray's (2002) hypotheses, Fijian accountants are placed at a higher level of conservatism when compared to Australian accountants.[7]

It is expected that the interpretation of uncertainty expressions contained in the IFRSs might be affected by both the context in which it is used and the degree of conservatism in a country. Two generalized hypotheses are formulated to provide a basis for the examination of the influence of national culture on the interpretation of uncertainty expressions contained in the accounting standards. In the first hypothesis, the judgments of professional accountants are considered in a 'conceptual' context—interpretation of in-context uncertainty expressions contained in selected excerpts from IFRSs. The second hypothesis considers the judgment of professional accountants in 'practical' situations on how a particular issue should be accounted for in an entity's financial report. Consequently, the first hypothesis is as follows:

[7] Selection of Fiji and Australia to investigate the interpretations of uncertainty expressions in IFRSs has an additional advantage that both countries have adopted the IFRSs recently and use English as their official language. Hence, there are no inherent problems of translation, thus avoiding any potential bias introduced through translation or language culture.

H1: Fijian and Australian professional accountants will interpret and apply uncertainty expressions in IFRSs differently.

H1a: Fijian accountants will assign a higher numerical probability than Australian accountants to uncertainty expressions that determine the threshold for recognition of assets and increases in net income.
H1b: Fijian accountants will assign a lower numerical probability than Australian accountants to uncertainty expressions that determine the threshold for recognition of liabilities and decreases in net income.

In a similar manner it is expected that Fijian professional accountants will be more conservative in their judgments (in practical situations) while recognizing the elements of financial statements when compared to Australian professional accountants. Consequently, the second hypothesis is as follows:

H2: There will be differences in judgments between Australian and Fijian accountants when provided with accounting standards that require the exercise of professional judgments.

That is, it is expected that Fijian accountants will generally tend to defer the recognition of assets and increases in net income while speed up the recognition of liabilities and decreases in net income when compared to Australian accountants. This is because conservatism relates to a preference for a cautious approach to recognition and accountants who are conservative should anticipate losses or liabilities but not gains and assets (see Chanchani and Willett 2004, p.129–130).

### 5.33.2 Influence of Organizational Culture (Big 4/Non-big 4) on Judgments of Professional Accountants (H3)

A number of cross-cultural studies have examined the differences in the organizational cultures of big 4 and non-big 4 accounting firms including Soeters and Schreuder

(1988), Pratt et al. (1993) and Chow et al. (2002). For example, Soeters and Schreuder (1988) examined whether there were cultural differences between local Dutch and international accounting firms operating in the Netherlands. Using Hofstede's (1980) instrument to measure differences in the organizational cultures of local Dutch and international accounting firms, the results showed that there were significant differences in some of the questions that measured Power Distance, Uncertainty Avoidance, Individualism, and Masculinity. The authors explained that self-selection of employees coupled with the selection policies of international accounting firms was "probably the best explanation for the US oriented culture in these organizations" (Soeters and Schreuder 1988, p.82).

In a similar manner, Pratt et al. (1993) examined the differences in work-related values among professional accountants from Australia, UK and the US who were categorized into three groups. Their results showed that UK accountants working in US firms operating in the UK reflected the cultural values of US accountants, but no such relationships were found for Australian accountants in US firms in Australia (p.626). In a more recent study, Chow et al. (2002) examined the organizational cultures of public accounting firms with data from US affiliated international accounting firms in Taiwan and Taiwanese local firms. The study tested hypotheses on the impact of the national culture of the US firms on their Taiwanese affiliates and about cultural differences across functions and rank. The study found support for the cultural impact, "culture is found to be relatively homogeneous across function, [however] differences are found across rank" (p.347). This study extended the previous research by going beyond the aggregate cross-national level of analysis and to explore cultural differences at firms and sub-unit levels as well as the national level. These studies provide some evidence of similarities in organizational cultures of the big 4 accounting firms.

Moreover, an overarching issue that emerges from the review of the accounting judgment literature is that the models linking accounting judgments and organizational culture show that there is a connection between organizational culture and the judgments

of professional accountants. A vast majority of the professional accountants' judgments literature has not only shown evidence of differences in organizational cultures between the big 4 and non-big 4 accounting firms, but has also shown that judgments between these two groups of accountants differ (see for example, Cushing and Loebbecke 1986; Manson et al. 1998; Windsor 2000; Lin et al. 2003; Patel 2003). Additionally, both accounting and non-accounting related studies investigating the interpretations of uncertainty expressions have found that variability is lower in groups from homogenous backgrounds (see Brun and Teigen 1988 and Doupnik and Richter 2003 for a review of these studies).

Professional accountants need to be well trained and extensively exposed to uncertainty expressions contained in the IFRSs before they can be expected to interpret and apply these expressions in a consistent manner. The big 4 accounting firms have been found to devote greater time and resources to the IFRS implementation task and to provide adequate training to their employees when compared to non-big 4 firms (Jones and Higgins 2006, p.10). Therefore, it is expected that the big 4 professional accountants will have greater knowledge of IFRSs and will be able to consistently interpret and apply these standards when compared to non-big 4 professional accountants. Accordingly, based on the available theoretical and empirical evidence, the following hypothesis is formulated:

H3: The professional accountants in big 4 firms in Australia and Fiji interpret and apply accounting standards that require the exercise of professional judgments differently from those in non-big 4 firms.

That is, there will be differences in the judgments between the big 4 and non-big 4 professional accountants in Australia and Fiji when provided with accounting standards that require the exercise of professional judgments.

### 5.33.3 Interaction between National and Organizational Culture in Influencing Judgments of Professional Accountants (H4)

To extend the literature on judgments of professional accountants, this study also examines the interaction between the effects of national culture and organizational culture in influencing the judgments of accountants. Prior literature has no established theory to develop definitive and directional hypotheses on the effects of the interaction between the national culture and organizational culture on judgments. As previously noted in the literature review, there is considerable literature available which has found the influence of national culture and organizational culture on judgments of professional accountants in isolation. However, that literature does not directly address the phenomenon at issue in this study and, when the literature was searched for any insight into the interaction between national and organizational culture, efforts were confronted with conflicting implications.

While it is expected that national culture will tend to cause a difference in the judgments of professional accountants in Australia and Fiji, the similarities in the organizational culture of the big 4 firms in these two countries will tend to reduce the variability in the judgments of the big 4 professional accountants. Therefore, the difference in the judgments between non-big 4 professional accountants in Australia and Fiji is expected to be greater when compared to the difference in judgments between the big 4 professional accountants in these two countries. This interaction effect is depicted in figure 5.1. Consequently, the following hypothesis is proposed:

H4: National culture and organizational culture will interact to influence the judgments of big 4 and non-big 4 professional accountants in Australia and Fiji. The interaction will have the following effects:

a) The effect of national culture will be stronger than the effect of organizational culture in influencing the judgments of non-big 4 professional accountants,

leading to a greater difference in judgments between non-big 4 professional accountants in Australia and Fiji.

b) The effect of organizational culture will be stronger than the effect of national culture in influencing the judgments of big 4 professional accountants, leading to a lower level of difference in judgments between big 4 professional accountants in Australia and Fiji.

[Insert Figure 5.1 here]

Apart from the influence of national and organizational culture, the presumed differences in judgments of professional accountants may be a function of certain background variables. The examined variables in this study are professional accountants' gender, age, their level of formal education, years of work experience, their level of familiarity with the Australian or Fijian equivalents of the IASs/IFRSs, and their perceived level of complexity associated with the real world scenarios used.

## 5.40 RESEARCH APPROACH

### 5.41 Research Method – Questionnaire Survey

This study adopts a survey research method. Survey research methods provide one way of obtaining information directly from a group of individuals in some specific context (Dane 1990, p.120). Data are collected through the use of survey questionnaires. The survey is a non-experimental, descriptive research method and is useful when a researcher wants to collect data on phenomena that cannot be directly observed such as opinions and judgments. Compared to experiments, the survey method also enhances the external validity of studies by eliciting from respondents certain facts, beliefs and behavioral descriptions relating to their own organizational experiences, producing results with greater generalizability (Brownell 1995, p.31). Overall, questionnaire

surveys allow for the collection of data in an efficient, effective and timely manner, and also enable researchers to address multiple hypotheses.

The survey research method was selected in this study for its cost effectiveness in collecting data from professional accountants located in three cities in two countries. While cost effectiveness and external validity favor the use of survey research, it is also important that surveys are rigorously designed and administered. A number of strategies have been adopted to overcome its major limitations and to use the survey approach correctly. Survey research requires a clear formulation of *a priori* hypotheses developed within a theoretical context. This study has taken particular care to consider theories from accounting, sociology and history in formulating *a priori* hypotheses. Additionally, as Dane (1990, p.127) notes, pre-testing survey instruments "is the most important phase of survey research." Consequently, an extensive pilot testing of the research instrument was used in this study.

## 5.42 Subjects

Data to test the hypotheses were collected using a survey questionnaire administered on professional accountants from both the big 4 and non-big 4 accounting firms in Fiji and Australia. In Fiji, the survey was conducted as part of the professional development training program of the Fiji Institute of Accountants in March 2007. The chosen respondents had professional accounting qualifications and were members of the Fiji Institute of Accountants. Therefore, in all cases the respondents had been exposed to the Fijian equivalents of the IFRSs, though their knowledge and experiences varied. All participants were geographically located in and around Suva and Lautoka, the two major commercial centers within Fiji. While a total of 232 participants took part in the survey, only 205 responses were from Ethnic Fijian and Indo-Fijian respondents.[8] Therefore, a total of 205 valid responses were received from the participants (Ethnic Fijians - 52 and

[8] The remaining 27 respondents were from minority ethnic groups, namely Chinese, Caucasian and people of mixed race.

Indo-Fijians - 153), of which 64 respondents were from the big 4 accounting firms and 141 respondents were from non-big 4 accounting firms.

In Australia, the survey was distributed in both the big 4 and non-big 4 accounting firms in the Sydney metropolitan area, the major commercial center in the country. Prior contacts were made with all the big 4 accounting firms and randomly selected non-big four accounting firms, and those that agreed to allow their employees to participate in the survey were sent the survey questionnaires. The survey was then distributed to the individuals who were qualified members of one of the two professional bodies in Australia (i.e. CPA Australia or The Institute of Chartered Accountants in Australia). Therefore, in all cases the respondents had been exposed to the Australian equivalents of the IFRSs, though their knowledge and experiences varied. Although a total of 139 participants took part in the survey, only 86 responses were from Anglo-Celtic respondents.[9] Therefore, a total of 86 valid responses were received from the participants, wherein 36 respondents were from the big 4 accounting firms and 50 respondents were from non-big 4 accounting firms.

### 5.43 Tasks

The research instrument was developed with extensive consultation with the accounting academics of both Macquarie University in Australia and the University of the South Pacific in Fiji, and in light of the issues in accounting standards that require the exercise of professional judgments. The experiment was pre-tested both in Australia (with five accounting academics from Macquarie University and twenty-one professional accountants) and Fiji (with eighteen accounting academics from the University of the South Pacific and twenty-three professional accountants). Problems with the research instrument were identified and rectified to improve the understandability and readability.

[9] The remaining 53 respondents were from minority ethnic groups including Chinese, Indians, Malaysians and people of mixed race.

To test the relevant hypotheses, there was a need to select excerpts from the Australian and Fijian equivalents of the IFRSs which contained uncertainty expressions. Consequently, a comprehensive review of all the extant IFRSs was undertaken to identify the uncertainty expressions that are used in individual standards. A total of eighteen excerpts from various IFRSs containing uncertainty expressions were selected. The selected uncertainty expressions include *substantially* (three instances), *significantly*, *probable* (seven instances), *remote* (two instances), *virtually certain*, *sufficiently*, *more likely than not*, *no longer probable* and *reasonable assurance*. The excerpts covered a wide variety of accounting contexts in which uncertainty expressions are used to recognize (or derecognize) assets, liabilities and increases in income (revenues) or decreases in income (expenses).

In addition, 'practical' scenarios were developed where professional accountants had to interpret these uncertainty expressions and make a judgment on how a particular issue should be accounted for in an entity's financial report. Consequently, in the last section of the questionnaire, respondents were presented with three 'practical' scenarios. Each scenario required a judgment on how a particular issue should be accounted for in an entity's financial report. For each scenario an extract of a conversation between two accountants was provided, in which one accountant stated that a certain accounting treatment should be used and the second accountant was of the view that a different treatment should be used. The subjects were asked to provide a judgment on the matter by providing a response on a seven-point Likert scale (where 7 denoted 'strongly agree,' 6 denoted 'agree,' 5 denoted 'somewhat agree,' 4 denoted 'neutral,' 3 denoted 'somewhat disagree,' 2 denoted 'disagree,' and 1 denoted 'strongly disagree').

To preserve internal validity and to enable differences in judgments between accountants from the two nations to be attributable to cultural differences, particular care was taken in designing the scenarios. Potentially confounding variables that may also affect the judgments of professional accountants were controlled (or measured). For example, prior research has shown evidence of factors such as 'complexity' to influence

judgments. Therefore, the three scenarios used in this study were similar in their levels of difficulty. That is, although the three scenarios were drawn from different accounting standards, they only required interpretation of the uncertainty expression(s) contained in a single relevant principle (paragraph) in the accounting standard that the professional accountant had to refer to and apply in deciding the appropriate form of disclosure. All the three scenarios required the exercise of professional judgment, where participants had to interpret and apply the selected principle (containing uncertainty expression) in the relevant accounting standards. For example, a scenario drawing on the Australian and Fijian equivalent of International Accounting Standard (IAS) 12 *Accounting for Income Tax* required interpretation of the word 'probable' (paragraph 24). Similarly, in another scenario based on the Australian and Fijian equivalent of IAS 23 *Borrowing Cost* required the interpretation of the uncertainty expression 'substantially' contained in paragraph 27.

The first scenario was based on AASB 117/Fiji Accounting Standard (FAS 17) *Leases* and required a judgment on whether a leased item should be recognized as a finance lease. In particular, judgment was required on whether the 'risks and rewards of ownership' had been passed to the lessee. The second scenario, based on AASB 123/FAS 23 *Borrowing Cost*, required the judgment of whether to capitalize or expense the interest. The scenario related to the treatment of interest on a loan that had been raised to finance a project in part, specifically, to decide whether it had to be expensed with the project becoming partially operational. The third scenario was based on AASB 112/FAS 12 *Accounting for Income Tax* and required a judgment on the recognition of a deferred tax asset. Specifically, judgment was required on whether a deferred tax asset should be recognized resulting from the management's decision to write-down the investment (held in form of a fixed interest security that will mature in ten years time). The complete version of the survey questionnaire is attached in Appendix 2.

## 5.44 Procedure

It was important to ensure that all respondents received the same instruction and background information, and in the same format. All the relevant instructions were provided in a cover letter or prior to each of the sections. The research instrument consisted of four sections. The first section required respondents to provide demographic data such as gender, age, level of formal education, ethnicity (culture) and employer details. The respondents from Australia and Fiji were also asked to indicate their level of familiarity with the Australian or Fijian equivalents of the IASs/IFRSs (measured both by how familiar they were with the IASs/IFRSs and how frequently they referred to these standards in their professional practice).

The second section consisted of the questionnaire applied by Hofstede (1994) in his Values Survey Module (VSM). It has the strength of having been widely used and recognized as a means of capturing the cultural values of individuals. An additional question was also included at the end of this section that was designed to elicit individuals' perceptions of their cultures. Respondents were given two sets of characteristics derived from attributes developed by Hofstede (1980) and Hofstede and Hofstede (2005), and were asked to indicate which set best described their society (the attributes characterized the four cultural value dimensions that were relevant for the current study—high uncertainty avoidance/low uncertainty avoidance, individualistic/collectivist, masculine/feminine and short-term/long-term oriented societies). The major reason for including this question is because of the argument that the impact of culture on individual behavior and attitudes arises from individuals' perceptions of their position and status within the cultural setting. Thus, it is their perception of the norms and mores of their society (or other reference group) that determine their behaviors and attitudes within that society (or group). Hence, a question asking respondents to describe their society (on the basis of a given set of

characteristics) ensures that respondents perceive the cultural context surrounding their behaviors in the same way that we assert they do.[10]

The third section consisted of eighteen in-context uncertainty expressions contained in the Australian and Fijian equivalents of IFRSs which involve judgments. Respondents were asked to indicate the numerical probability that best corresponds, in their opinion, to each uncertainty expression in percentage terms on a scale of 0% to 100%. The fourth section consisted of three scenarios, based on disguised examples of cases where the exercise of professional judgment was required. The scenarios are therefore representative of the types of events and disclosures professional accountants are likely to encounter in practice. Though the three scenarios used in this study were almost similar in their levels of difficulty, respondents were asked to identify their perceived level of complexity for each of the scenarios on a seven-point Likert scale (where 1 denoted 'not complex' and 7 denoted 'extremely complex').

A scenario approach was selected because it provides a more realistic context for the respondents to exercise their judgment (Dane 1990; Brownell 1995). It was emphasized to respondents that each scenario should be treated independently. The scenarios were provided in random order. Five versions of the survey questionnaire were prepared where the uncertainty expressions contained in section three were randomized and the scenarios used in section four were also randomized to mitigate any order effects.

In all the three scenarios used in the last section, the respondents were provided with the relevant passages in extant accounting standards to assist them in making their judgments. They were also allowed to refer to any other accounting standards, if they felt that it would assist them in making their judgments. The results obtained were then statistically analyzed (primarily using SPSS multivariate and univariate analysis) to

[10] However, it could be argued that this question could lead to demand characteristics. However, it was at the end of this section and the questionnaire was sufficiently long that pilot tests did not suggest that people review later questions before commencing to answer the questionnaire. Additionally, as culture was the focal independent variable in this study, this question also substantiated its measurement.

determine the factors causing differences in the judgments of Australian and Fijian professional accountants.

## 5.50 RESULTS AND DISCUSSION

A brief summary of the demographic details of the 291 respondents is as follows. The mean age of the Australian respondents was 38.4 years and that of Fijian respondents were 29.3 years. On average, the level of formal education attained by professional accountants in Australia was 17.5 years while in Fiji it was 16.9 years. Both in Australia and Fiji about 60% of the respondents were males and 40% were females. The demographic data of the respondents are reported in table 5.1.

For subsequent analysis, any response that indicated a lack of understanding of the scenarios provided was considered of suspect validity and was discarded from the data set.

The first step in the analysis was to test for differences in the judgments of professional accountants with other demographic variables, apart from the effects of national culture and organizational culture (big 4 and non-big 4 affiliations). Recall that studies assessing the judgments of professional accountants have shown that there could be other variables affecting the judgments of accountants, such as gender, age, level of formal education and years of work experience. Analyses of these variables showed that gender, age, level of formal education and years of work experience did not significantly affect judgments of professional accountants (at $p < 0.05$). Additional results of the study are provided below.

## 5.51 Cultural Differences between Australian and Fijian Professional Accountants

Recall that the cultural dimensions of Uncertainty Avoidance, Individualism, Masculinity and Long-term Orientation are implicated in the cross-cultural comparisons in this study. It was expected that Australian and Fijian professional accountants will differ substantially on these cultural values and Fijian accountants will exhibit stronger conservatism when compared to the Australian accountants. That is, Fijian professional accountants will rank higher than the Australian professional accountants on Uncertainty Avoidance and Long-term Orientation, and lower on Individualism and Masculinity, all of which is consistent with stronger conservatism.

This study has used the updated version of Hofstede's Values Survey Module (1994) to calculate the cultural dimensions of Uncertainty Avoidance, Individualism, Masculinity and Long-term Orientation for the sample of respondents from Australia and Fiji. It should be noted that the formulae for calculating the cultural dimensions based on Hofstede's Value Survey Module (1994) are different to that used by Hofstede (1980) and that there are considerable differences between the questions used in the two formulae. Hofstede (1994, p.7) clarified that "Indexes calculated with the old and new formulas are not necessarily the same! However, they should produce approximately the same score differences between countries." The discussion on each of the four cultural dimensions follows.

***Uncertainty Avoidance***

The calculation of the Uncertainty Avoidance index for the two countries is based on the responses to Questions 13, 16, 18 and 19 of the survey questionnaire (shown in Appendix 2). The following formula is used for this calculation (Values Survey Module Manual 1994, p.4):

Uncertainty Avoidance = 25M(Q13) + 20M(Q16) – 50M(Q18) – 15M(Q19) + 120.

M(Q13) in the above formula is the mean score for Question 13, M(Q16) is the mean score for Question 16, and so on.

The Uncertainty Avoidance indices calculated from the present samples for Australia and Fiji are shown in Table 5.2a. This table also compares the indices obtained in this study with those reported by Hofstede and Hofstede (2005). A lower index will suggest a low uncertainty avoidance society. Australia had a score of 52 while Fiji had an overall score of 63.[11] The Uncertainty Avoidance index calculated for Australia in this study is similar to that reported by Hofstede and Hofstede (2005) which was 51.

A multivariate test (MANOVA) was used to determine whether a significant difference exits between the Australian and Fijian professional accountants across the set of four questions relating to Uncertainty Avoidance. The result indicates that a significant difference exists ($p = 0.000$) between professional accountants from Australia and Fiji with respect to their Uncertainty Avoidance Indices.[12] The descriptive statistics are reported in table 5.2b, and the results from the multivariate test and the univariate tests (ANOVA) for each of the four questions are shown in table 5.2c. The follow-up non-parametric Mann-Whitney U test results also showed similar differences between Australian and Fijian professional accountants on each of the four questions.

The results from the question where respondents were asked to describe their society (on the basis of a given set of characteristics) also support the Uncertainty Avoidance

[11] The overall score of Fijians (Ethnic Fijians and Indo-Fijians combined) was compared with the Australians (Anglo-Celtics). This is because even though there are some differences in the values of the four cultural indices between the Ethnic Fijians and Indo-Fijian respondents, it is not in any particular direction. That is, while in two of the cultural indices (Uncertainty Avoidance and Individualism) Indo-Fijians rank higher than the Ethnic Fijians, in the other two (Masculinity and Long-term Orientation) they rank lower than the Ethnic Fijians. Therefore, there is no conclusive evidence that any one of the ethnic groups is more conservative than the other.

[12] It should be noted that this study uses the individual responses for the set of questions relating to each cultural dimension to test for statistical significance of differences between Australian and Fijian professional accountants. However, Hofstede's cultural dimension scores are weighted at the group level (i.e. it uses an established formula to calculate the scores for each country), precluding any test for statistical significance.

indices. The univariate test results indicate that a significant difference exists ($p = 0.000$) between professional accountants from Australia and Fiji. Australian professional accountants indicated that Australia exhibits the characteristics of a low Uncertainty Avoidance society (mean of 1.87, where 1 denoted a high uncertainty avoidance society and 2 denoted a low uncertainty avoidance society), while Fijian professional accountants indicated that Fiji exhibits the characteristics of a high Uncertainty Avoidance society (mean of 1.23). The descriptive statistics are reported in table 5.2b and the univariate results are reported in table 5.2c.

Overall, the result of this study shows that a significant difference exists in the Uncertainty Avoidance indices between professional accountants from Australia and Fiji. As Fijian professional accountants rank significantly higher than the Australian professional accountants on Uncertainty Avoidance indices, it suggests that Fijian accountants exhibit stronger conservatism when compared to the Australian accountants.

***Individualism***

The Individualism index for each country is based on the responses to Questions 1, 2, 4 and 8 of the survey questionnaire. The following formula is used for this calculation (Values Survey Module Manual, 1994, p.3):

Individualism Index = – 50M(Q1) + 30M(Q2) + 20M(Q4) – 25M(Q8) + 130.

The Individualism indices calculated from the present samples for Australia and Fiji are shown in Table 5.2a. A larger index suggests a higher individualistic society. Australia had a score of 108 while Fiji had an overall score of 70. The Individualism index calculated for Australia in this study is similar to that reported by Hofstede and Hofstede (2005) which was 90.

The multivariate test result indicates that a significant difference exists (p = 0.000) between the Australian and Fijian professional accountants across the set of four questions relating to Individualism. The descriptive statistics are reported in table 5.2b, and the results from the multivariate test and the univariate tests for each of the four questions are shown in table 5.2c. The follow-up non-parametric Mann-Whitney U test results also showed similar differences between Australian and Fijian professional accountants on each of the four questions.

The results from the question where respondents were asked to describe their society (on the basis of a given set of characteristics) also support the Individualism indices. The univariate test results indicate that a significant difference exists (p = 0.000) between professional accountants from Australia and Fiji. Australian professional accountants indicated that Australia exhibits the characteristics of an individualistic society (mean of 1.91, where 1 denoted a collectivist society and 2 denoted an individualistic society), while on the other hand Fijian professional accountants regarded Fiji to exhibit the characteristics which is more aligned towards a collectivist society (mean of 1.06). The descriptive statistics are reported in table 5.2b and the univariate results are reported in table 5.2c.

Overall, the result of this study shows that a significant difference exists in the Individualism indices between professional accountants from Australia and Fiji. As Fijian professional accountants rank significantly lower than the Australian professional accountants on Individualism indices, it suggests that Fijian accountants exhibit stronger conservatism when compared to the Australian accountants.

***Masculinity***

The calculation of the Masculinity index for each country was based on the responses to Questions 5, 7, 15 and 20 of the survey questionnaire. The following formula is used for this calculation (Values Survey Module Manual 1994, p.4):

Masculinity Index = 60M(Q5) – 20M(Q7) + 20M(Q15) – 70M(Q20) + 100.

The Masculinity indices calculated from the present samples for Australia and Fiji are shown in Table 5.2a. A larger index suggests a higher masculine society. Australia had a score of 28 while Fiji had an overall score of 24. The Masculinity index calculated for Australia in this study is quite different to that reported by Hofstede and Hofstede (2005) which was 61.

The multivariate test result indicates that a significant difference exists ($p = 0.000$) between the Australian and Fijian professional accountants across the set of four questions relating to Masculinity. The descriptive statistics are reported in table 5.2b, and the results from the multivariate test and the univariate tests for each of the four questions are shown in table 5.2c. The follow-up non-parametric Mann-Whitney U test results also showed similar differences between Australian and Fijian professional accountants on each of the four questions.

The results from the question where respondents were asked to describe their society (on the basis of a given set of characteristics) also support the assertion that Australian society is more masculine than the Fijian society. The univariate test results indicate that a significant difference exists ($p = 0.000$) between professional accountants from Australia and Fiji. Australian professional accountants indicated that Australia exhibits the characteristics of a masculine society (mean of 1.77, where 1 denoted a feminine society and 2 denoted a masculine society), while on the other hand Fijian professional accountants regarded Fiji to exhibit the characteristics of a feminine society (mean of 1.13). The descriptive statistics are reported in table 5.2b and the univariate results are reported in table 5.2c.

Overall, the result of this study shows that a significant difference exists in the Masculinity indices between professional accountants from Australia and Fiji. As Fijian professional accountants rank lower than the Australian professional accountants on

Masculinity indices, it suggests that Fijian accountants exhibit stronger conservatism when compared to the Australian accountants.

***Long-term Orientation***

The calculation of the Long-term Orientation index for each country was based on the responses to Questions 9, 10, 11 and 12 of the survey questionnaire. The following formula is used for this calculation (Values Survey Module Manual 1994, p.4):

Long-term Orientation Index = 45M(Q9) – 30M(Q10) – 35M(Q11) + 15M(Q12) + 67.

The Long-term Orientation indices calculated from the present samples for Australia and Fiji are shown in Table 5.2a. The index will normally have a value between 0 (which denotes a very short-term oriented society) and 100 (which denotes a very long-term oriented society). Australia had a score of 35 while Fiji had an overall score of 43. The Long-term Orientation index calculated for Australia in this study is similar to that reported by Hofstede and Hofstede (2005) which was 31.

The multivariate test result indicate that a significant difference exists ($p = 0.000$) between the Australian and Fijian professional accountants across the set of four questions relating to Long-term Orientation. The descriptive statistics are reported in table 5.2b, and the results from the multivariate test and the univariate tests for each of the four questions are shown in table 5.2c. The follow-up non-parametric Mann-Whitney U test results also showed similar differences between Australian and Fijian professional accountants on each of the four questions.

The results from the question where respondents were asked to describe their society (on the basis of a given set of characteristics) also support the Long-term Orientation indices. The univariate test results indicate that a significant difference exists ($p = 0.000$) between professional accountants from Australia and Fiji. Australian professional

accountants indicated that Australia exhibits the characteristics of a short-term oriented society (mean of 1.83, where 1 denoted a long-term orientated society and 2 denoted a short-term oriented society), while on the other hand Fijian professional accountants regarded Fiji to exhibit the characteristics which is more aligned towards a long-term orientated society (mean of 1.11). The descriptive statistics are reported in table 5.2b and the univariate results are reported in table 5.2c.

Overall, the result of this study shows that a significant difference exists in the Long-term Orientation indices between professional accountants from Australia and Fiji. As Fijian professional accountants rank significantly higher than the Australian professional accountants on Long-term Orientation indices, it suggests that Fijian accountants exhibit stronger conservatism when compared to the Australian accountants.

The results obtained on the cultural dimensions of Uncertainty Avoidance, Individualism, Masculinity and Long-term Orientation provide evidence that Fijian accountants exhibit stronger conservatism when compared to Australian accountants. That is, Fijian professional accountants have been found to rank significantly higher than the Australian professional accountants on Uncertainty Avoidance and Long-term Orientation which are the two most closely related cultural dimensions to conservatism.[13] In addition, Fijian professional accountants have been found to rank significantly lower than the Australian professional accountants on Individualism and Masculinity which also suggests that Fijian accountants exhibit stronger conservatism when compared to Australian accountants.

<Insert Table 5.2a, b & c about here>

[13] Conservatism is most closely linked with the uncertainty avoidance dimension and the short-term versus long-term orientation, though there also seems to be a weak link between individualism and masculinity to a conservative approach to measurement (Doupnik and Riccio 2006, p.241).

## 5.52 Influence of National Culture on Judgments of Professional Accountants – Conceptual (H1)

The groupings of uncertainty expressions according to the hypotheses (H1a & H1b) and the expected differences in the interpretation of uncertainty expressions between Australian and Fijian professional accountants are reported in table 5.3a. It is expected that Fijian professional accountants, being more conservative than Australian professional accountants, will assign a higher mean probability to the uncertainty expressions which relates to the recognition of assets (or derecognition of liabilities) and increases in net income. In this study, eleven excerpts related to these contexts. For example, according to IAS 18, "revenue from the sale of goods shall be recognized when it is *probable* that the economic benefits associated with the transaction will flow to the entity." In this context, it is expected that Fijian professional accountants will want to defer income recognition (revenues)—they would attach a higher numerical probability (on a 0–100% scale) to meet the threshold 'probable.' In a similar manner, Fijian professional accountants will assign a lower mean probability to the uncertainty expressions which relate to the recognition of liabilities (or derecognition of assets) and decreases in net income. Seven excerpts related to these contexts. For example, according to IAS 11 "when it is *probable* that total contract costs will exceed total contract revenue, the expected loss shall be recognized as an expense immediately." In this context, it is expected that Fijian professional accountants will want to accelerate the recognition of a decrease in income (expenses)—they would attach a lower numerical probability to meet the threshold 'probable.'

<Insert Table 5.3a about here>

A multivariate test (MANOVA) was used to determine whether a significant difference exists between the Australian and Fijian professional accountants across the set of uncertainty expressions relating to H1 (H1a & H1b). Univariate tests (ANOVA) were also used to test for differences in the interpretation of each of the uncertainty

expressions and the directions of the differences are also identified to see if they are consistent with the hypothesis.

To test Hypothesis 1 and identify the overall effect, the mean point-estimates for the Australian and Fijian professional accountants were compared. Multivariate test results indicate a significant difference ($p = 0.000$) between the Australian and Fijian professional accountants across the eighteen uncertainty expressions. To test H1a, the eleven uncertainty expressions which relate to the recognition of assets (or derecognition of liabilities) and increases in net income were grouped together. Multivariate test results indicate that a significant difference exists ($p = 0.000$) between the Australian and Fijian professional accountants across the eleven uncertainty expressions. Univariate test results indicate significant differences in three of the eleven uncertainty expressions at $p < 0.05$ and another one uncertainty expression at $p < 0.10$. In seven out of the eleven uncertainty expressions, the differences in the mean probabilities assigned by the two groups occur in the predicted direction—Fijian professional accountants were more conservative when compared to Australian professional accountants and assigned a higher mean probability to the uncertainty expressions. The results from the multivariate test and the univariate tests for each of the eleven uncertainty expressions together with the mean probability of the uncertainty expressions and the direction of the differences are reported in table 5.3b.

To test H1b the seven uncertainty expressions which relate to the recognition of liabilities (or derecognition of assets) and decreases in net income were grouped together. Multivariate test results indicate that a significant difference exists ($p = 0.000$) between the Australian and Fijian professional accountants across the seven uncertainty expressions. Univariate test results indicate significant differences in three of the seven uncertainty expressions at $p < 0.05$. However, in only one out of the seven uncertainty expressions the difference was in the expected direction—Fijian professional accountants were more conservative when compared to Australian professional accountants and assigned a lower mean probability to the uncertainty expression. The

results from the multivariate test and the univariate tests for each of the seven uncertainty expressions together with the mean probability of the uncertainty expressions and the direction of the differences are reported in table 5.3b.

<Insert Table 5.3b about here>

Overall, the results support H1 and show that the Fijian and Australian professional accountants interpret and apply uncertainty expressions in IFRSs differently. However, the results only provide partial support to the notion that Fijian professional accountants, being more conservative than Australian professional accountants, assign a higher mean probability to the uncertainty expressions which relates to the recognition of assets and increases in net income (or assign a lower mean probability to the uncertainty expressions which relate to the recognition of liabilities and decreases in net income).

It seems that the differences between Australian and Fijian professional accountants were not in the expected direction because of the failure on part of the accountants to identify the 'context' in which the uncertainty expressions were used. Recall that to overcome any order effects the uncertainty expressions provided to the respondents were not grouped together (as those relating to (1) recognition of assets and increases in net income and (2) recognition of liabilities and decreases in net income). The descriptive results reported in table 5.3b show that in some cases the respondents attached a similar numerical probability to a particular word irrespective of whether it was used in context of an asset or a liability (or increases in income or decreases in income). For example, Fijian professional accountants attached almost a similar numerical probability to the word 'probable' used in different contexts—a mean of 65.85 in the context of an asset (IAS 38) and a mean of 63.28 in the context of a liability (IFRS 3). In a similar manner, Australian professional accountants also attached almost a similar numerical probability to the word 'probable' used in different contexts—a mean of 60.06 in the context of an asset (IAS 16), a mean of 59.92 in the context of a liability (IFRS 3), and a mean of

59.69 in the context of a loss (IAS 11). Somewhat similar trends were also evident in the case of the word 'substantially' used in different contexts (see table 5.3b).

Results also show that numerical probabilities assigned to mirror image pairs do not sum to 100%. For example, the numerical probabilities assigned to 'probable' and 'no longer probable' used in the context of recognition (derecognition) of deferred tax asset do not sum to 100%. The descriptive results reported in table 5.3b show that Fijian professional accountants had a mean probability of 63.68 for 'probable' used in the context of a deferred tax asset (IAS 12) and a mean of 57.07 for 'no longer probable' used in a similar context, totaling to 120.75%. In a similar manner, Australian professional accountants had a mean probability of 61.75 for 'probable' used in the context of a deferred tax asset (IAS 12) and a mean of 53.57 for 'no longer probable' used in a similar context, totaling to 115.32%.

## 5.53 Influence of National Culture on Judgments of Professional Accountants – Practical (H2)

A multivariate test (MANOVA) was used to determine whether a significant difference exists in the judgments between Australian and Fijian professional accountants across all the three scenarios. Univariate tests (ANOVA) were also used to test for differences in judgments between Australian and Fijian professional accountants in each of the three scenarios.

The multivariate test result indicates that no significant difference exists in judgments ($p = 0.159$) between Australian and Fijian professional accountants across the three scenarios. However, the univariate test results indicate significant differences in one of the three scenarios at $p < 0.10$ (Scenario 2: $p = 0.089$). Therefore, the results partially support H2 and show that national culture has some effect on the judgments of professional accountants when interpreting and applying selected IFRSs which contain uncertainty expressions in practical situations. The descriptive statistics are reported in

table 5.4a and the results from the multivariate test and the univariate tests for each of the three scenarios are reported in table 5.4b.

<Insert Table 5.4a & b about here>

Follow up nonparametric Mann-Whitney U tests also showed that a significant difference exists between the judgments of Australian and Fijian professional accountants in Scenario 2 at $p < 0.10$ ($p = 0.110$). In the other two scenarios, there were no significant differences in judgments between Australian and Fijian professional accountants.

The result also does not provide any conclusive evidence that Fijian accountants are more conservative in their judgments while recognizing the elements of financial statements when compared to their Australian counterparts. For example, it is expected that Fijian accountants, being culturally more conservative, would tend to disagree with the judgment given in scenario 3 (as they had to record their judgment on the view that 'a deferred tax asset should be recognized'). In a similar manner, Australian accountants, being culturally less conservative, would tend to agree with the judgment given in scenario 3. However, the descriptive results show that in scenario three, Fijian professional accountants had a mean of 4.04 while the Australian professional accountants had a mean of 3.92 on a seven-point Likert scale (where 1 denoted 'strongly disagree' and 7 denoted 'strongly agree'). Contrary to expectation, the result shows that Australian professional accountants were more conservative in recognizing the deferred tax asset rather than the Fijian professional accountants.

Additional analyses were undertaken to identify if there are any correlations between the judgments of professional accountants in theory (mean point-estimates assigned to the relevant uncertainty expressions used in H1) and in real world cases (judgments required in the three scenarios used in H2). Scenario one was particularly designed to measure the correlation effect. Recall that scenario one required a judgment on whether a leased item

should be recognized as a finance lease—in this case the present value of the minimum lease payments amounted to 85% and respondents were asked to indicate whether a finance lease could be recognized, i.e. whether 85% could be considered to represent '*substantially* all of the fair value of leased asset' on a seven-point Likert scale (where 1 denoted 'strongly disagree' and 7 denoted 'strongly agree').[14] It is expected that a respondent who had assigned a probability of greater than 85% to 'substantial' (in H1) would tend to disagree with the judgment given in scenario 1 (as they had to record their judgment on the view that 'the asset should be recognized as a finance lease'). In a similar manner, a respondent who had assigned a probability lower than 85% to 'substantial' would tend to agree with the judgment given in scenario 1.

The results show that the correlation between the two judgments is not significant (Pearson correlation coefficient is 0.000, 2-tailed p = 0.989). Follow-up nonparametric correlation tests also show similar results (Kendall's correlation coefficient is 0.001, 2-tailed p = 0.987 and Spearman's correlation coefficient is -0.004, 2-tailed p = 0.944). Therefore, the correlation between the mean point-estimates assigned to the relevant uncertainty expression (in H1) and the judgment of professional accountants (in H2) is not significant.

## 5.54 Influence of Organizational Culture on Judgments of Professional Accountants (Big 4/Non-big 4) (H3)

A multivariate test (MANOVA) was used to determine whether a significant difference exists in judgments between the big 4 and non-big 4 professional accountants in Australia and Fiji across all the three scenarios. Univariate tests (ANOVA) were also used to test for differences in judgments between the big 4 and non-big 4 professional accountants in each of the three scenarios.

[14] In the other two scenarios there was no specific numerical probability given to interpret the relevant uncertainty expression used.

The multivariate test result indicates that a significant difference (at $p < 0.10$) exists in judgments ($p = 0.068$) between the big 4 and non-big 4 professional accountants in Australia and Fiji across the three scenarios. Univariate test results indicate significant differences in one of the three scenarios (Scenario 1: $p = 0.021$). Therefore, the results support H3 and show that organizational culture has an effect on the judgments of professional accountants when interpreting and applying selected IFRSs that contain uncertainty expressions. The descriptive statistics are reported in table 5.5a and the results from the multivariate test and the univariate tests for each of the three scenarios are reported in table 5.5b.

<Insert Table 5.5a & b about here>

The follow up nonparametric Mann-Whitney U tests also showed that a significant difference exists between the big 4 and non-big 4 professional accountants in Australia and Fiji in Scenario 1 ($p = 0.023$). In the other two scenarios, there were no significant differences in judgments between the big 4 and non-big 4 professional accountants in Australia and Fiji.

## 5.55 Interaction between National and Organizational Culture in Influencing Judgments of Professional Accountants (H4)

The results provide support for H4. They show that both national culture and organizational culture (big 4 and non-big 4 firm affiliation) interact to have a significant effect on the judgments of professional accountants ($p = 0.001$). These results reinforce the argument made earlier that an interaction exists between national culture and organizational culture while influencing judgments of professional accountants. The descriptive statistics are reported in table 5.6a and the results from the univariate tests are reported in table 5.6b.

[Insert Table 5.6a & b and Figure 5.2 about here]

It was expected that the difference in judgments between non-big 4 professional accountants in Australia and Fiji would be greater when compared to the difference in judgments between the big 4 professional accountants in these two countries. However, the result shows that the difference between the big 4 professional accountants in Australia and Fiji is greater (the descriptive results in Table 5.6a shows that Australian big 4 professional accountants had a mean of 4.28 while the Fijian big 4 professional accountants had a mean of 4.75 on a seven-point Likert scale) when compared to the difference in judgments between non-big 4 professional accountants in these two countries (Australian non-big 4 professional accountants had a mean of 4.62 while the Fijian non-big 4 professional accountants had a mean of 4.31). This could be because of big 4 accountants being better trained and more exposed to the IFRSs are more comfortable in exercising their judgments, while on the other hand non-big 4 accountants may be reluctant to exercise their judgments.

Additional analyses were also carried out to identify the influence of other factors on judgments of professional accountants in Australia and Fiji. Although the three scenarios used in this study were similar in their levels of difficulty, respondents were asked to identify their perceived level of complexity in each scenario on a seven-point Likert scale. The univariate test results indicate that the perceived level of complexity in each of the three scenarios have a significant effect on the judgments of professional accountants in Australia and Fiji (Scenario 1, $p = 0.000$; Scenario 2, $p = 0.000$; and Scenario 3, $p= 0.004$).

Recall that the respondents were also asked to indicate their overall level of familiarity with the Australian or Fijian equivalents of the IASs/IFRSs. The level of familiarity with IASs/IFRSs (measured as how frequently they referred to these standards in their professional practice, denoted by 'often,' 'sometimes,' 'seldom' or 'never') did not have a significant effect on the judgments of professional accountants in Australia and Fiji (at $p < 0.05$). In a similar manner, familiarity measured by how familiar the respondents were with the Australian or Fijian equivalents of the IASs/IFRSs (denoted by 'very

familiar,' 'familiar,' 'somewhat familiar,' and 'not familiar') did not have a significant effect on the judgments of professional accountants in Australia and Fiji (at $p < 0.05$).

## 5.60 CONCLUSIONS AND IMPLICATIONS

The primary objective of this study was to identify the extent and the cause of differences in judgments between professional accountants in Australia and Fiji when interpreting and applying selected IFRSs that contain uncertainty expressions. A number of directional hypotheses were formulated predicting the influence of national culture and organizational culture on the interpretation and application of uncertainty expressions contained in the accounting standards. Judgments of professional accountants were considered both in a conceptual context (interpretation of in-context uncertainty expressions contained in selected excerpts from IFRSs) and in practical situations (how a particular issue should be accounted for in an entity's financial report). It was expected that the level of conservatism shared by accountants in a country will affect their interpretation of uncertainty expressions used to establish the threshold for recognition of various accounting elements. To extend the literature on judgments of professional accountants, this study also examined the interaction between the effects of national culture and organizational culture in influencing the judgments of accountants. Additionally, adopting a holistic approach the effects of a number of non-cultural variables including professional accountants' gender, age, their level of formal education, years of work experience, their level of familiarity with the Australian or Fijian equivalents of the IFRSs, and their perceived level of complexity associated with the real world scenarios used in this study are also examined.

The results obtained on the cultural dimensions of Uncertainty Avoidance, Individualism, Masculinity and Long-term Orientation provided evidence that Fijian accountants exhibit stronger conservatism when compared to the Australian accountants. The consequent results of this study show that national culture has a significant effect in

the manner in which professional accountants in a country interpret uncertainty expressions contained in the IFRSs. Specifically, there are significant differences between the Australian and Fijian professional accountants when assigning numerical probabilities to the eighteen uncertainty expressions used in this study. The differences were still significant between the two groups of accountants when uncertainty expressions were grouped together into (1) recognition of assets and increases in net income and (2) recognition of liabilities and decreases in net income.

It was expected that Fijian professional accountants, being more conservative than Australian professional accountants, will assign a higher mean probability to the uncertainty expressions which relates to the recognition of assets and increases in net income (and will assign a lower mean probability to the uncertainty expressions which relate to the recognition of liabilities and decreases in net income). Surprisingly, the differences in judgments between Australian and Fijian accountants were not always in the expected direction. Further research could determine why this may be the case.

This study provides support for the notion that national cultural characteristics affect the decision making process of individuals while interpreting uncertainty expressions, a proposition rooted in behavioral decision theory. Consistent with the theory on the lack of symmetry, results also show that numerical probabilities assigned to mirror image pairs such as 'probable' and 'no longer probable' do not sum to 100%.

Furthermore, the results also provide partial support for the hypothesis that national culture has an effect on the judgments of professional accountants when interpreting and applying selected IFRSs that contain uncertainty expressions in practical situations (how a particular issue should be accounted for in an entity's financial report). Additional analyses were also undertaken to identify if there are any correlations between the judgments of professional accountants in theory (mean point-estimates assigned to the relevant uncertainty expressions) and in real world cases (judgments required in the three scenarios). The results show that the correlation between the two judgments was

not significant. This result makes intuitive sense in suggesting that while interpreting and applying accounting standards in real world situations, other non-cultural variables may also influence the judgments of professional accountants.

Furthermore, the results of this study also indicate that there is a significant difference in the judgments between the big 4 and non-big 4 professional accountants in Australia and Fiji when interpreting and applying selected IFRSs that contain uncertainty expressions in practical situations. Importantly, the results provide strong support for the argument that both national culture and organizational culture (big 4 and non-big 4 firm affiliation) interact to have a significant effect on the judgments of professional accountants.

It was expected that the difference in judgments between non-big 4 professional accountants in Australia and Fiji will be greater when compared to the difference in judgments between the big 4 professional accountants in these two countries. Contrary to this expectation, the difference in judgments between the big 4 professional accountants in Australia and Fiji was greater when compared to the difference in judgments between non-big 4 professional accountants in these two countries. This may be because big 4 accountants, being better trained and more exposed to the IFRSs, are more comfortable in exercising their judgments when compared to non-big 4 professional accountants.

The additional analyses carried out to identify the influence of other non-cultural factors on the judgments of professional accountants in Australia and Fiji also showed some interesting results. The results indicate that the perceived level of task complexity in each of the three scenarios used in this study have a significant effect on the judgments of professional accountants in Australia and Fiji.

The results of this study provide important insight into the factors affecting the judgments of professional accountants and raise interesting theoretical issues. It provides evidence that both cultural and non-cultural factors affect how professional accountants

interpret and apply accounting standards which contain uncertainty expressions. By including a wider spectrum of variables that has been considered individually by prior researchers, this study provides a better explanation of the factors causing differences in the judgments of professional accountants while interpreting and applying a set of accounting standards. Further implications and limitations of this study are outlined in Chapter 6.

**Figure 5.1: Hypothesized Effects of National and Organizational Culture on Judgments of Professional Accountants**

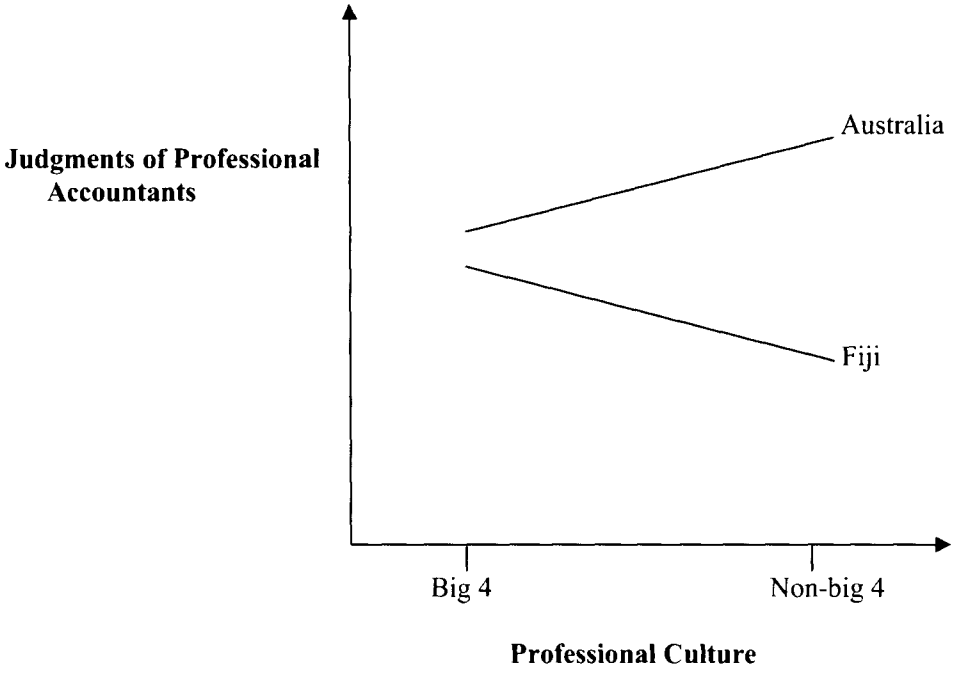

**Figure 5.2: Effects of National and Organizational Culture on Judgments of Professional Accountants**

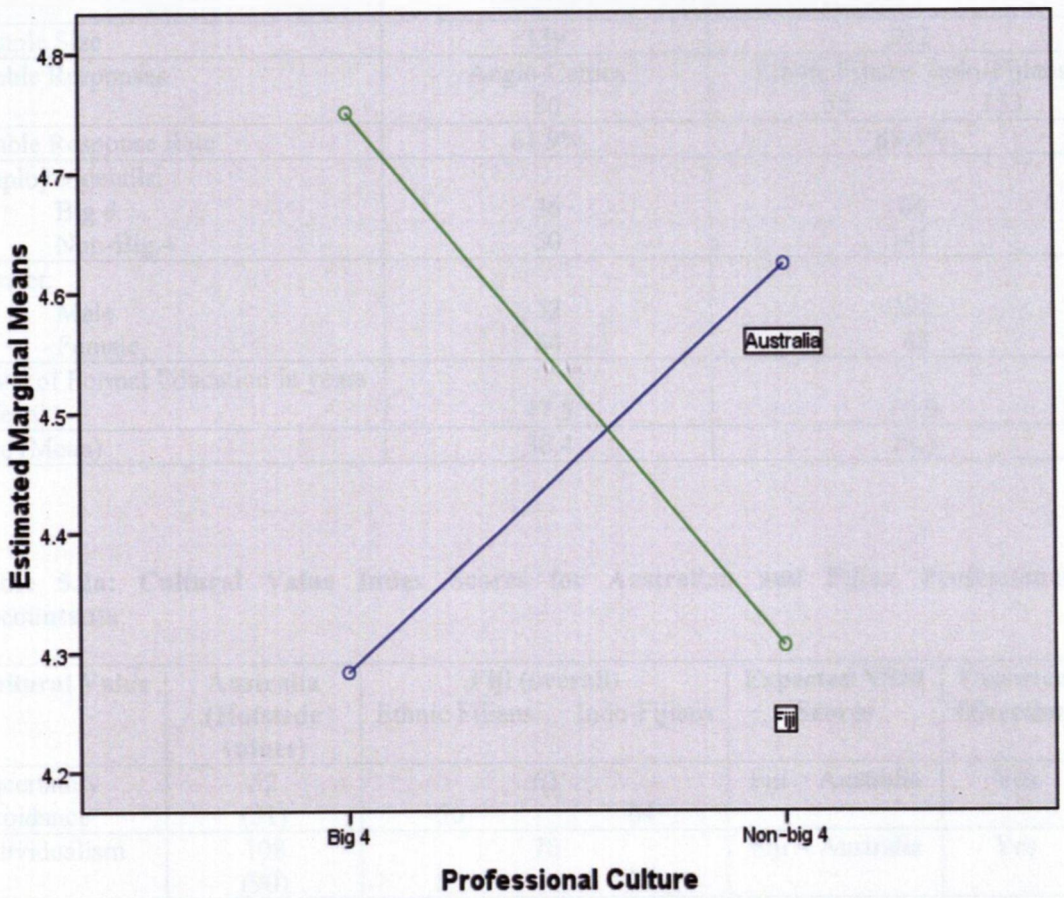

**Table 5.1: Demographic Data of the Respondents**

| Demographic Data | Australia | Fiji |
|---|---|---|
| Sample Size | 139 | 232 |
| Usable Responses | Anglo-Celtics<br>86 | Ethnic Fijians Indo-Fijians<br>52 153 |
| Usable Response Rate | 61.9% | 88.4% |
| Employer details:<br>Big 4<br>Non-Big 4 | <br>36<br>50 | <br>64<br>141 |
| Gender:<br>Male<br>Female | <br>52<br>34 | <br>122<br>83 |
| Level of Formal Education in years (Mean) | 17.5 | 16.9 |
| Age (Mean) | 38.4 | 29.3 |

**Table 5.2a: Cultural Value Index Scores for Australian and Fijian Professional Accountants**

| Cultural Value | Australia (Hofstede values) | Fiji (overall)<br>Ethnic Fijians Indo-Fijians | Expected VSM Scores | Expected Direction |
|---|---|---|---|---|
| Uncertainty Avoidance | 52<br>(51) | 63<br>56 64 | Fiji > Australia | Yes |
| Individualism | 108<br>(90) | 70<br>55 75 | Fiji < Australia | Yes |
| Masculinity | 28<br>(61) | 24<br>40 19 | Fiji < Australia | Yes |
| Long-term Orientation | 35<br>(31) | 43<br>43 42 | Fiji > Australia | Yes |

**Table 5.2b: Descriptive Statistics of Cultural Value Questions for Australian and Fijian Professional Accountants**

| Cultural Value | Culture | Mean | Standard Deviation | N |
|---|---|---|---|---|
| **Uncertainty Avoidance (UA)** | | | | |
| | Australia | 2.88 | 0.822 | 85 |
| Q13 | Fiji | 2.75 | 0.614 | 205 |
| | Total | 2.79 | 0.683 | 290 |
| | Australia | 2.41 | 0.955 | 85 |
| Q16 | Fiji | 3.36 | 1.135 | 205 |
| | Total | 3.08 | 1.166 | 290 |
| | Australia | 2.92 | 1.082 | 85 |
| Q18 | Fiji | 3.01 | 1.133 | 205 |
| | Total | 2.98 | 1.118 | 290 |
| | Australia | 2.82 | 1.115 | 85 |
| Q19 | Fiji | 2.85 | 1.150 | 205 |
| | Total | 2.84 | 1.138 | 290 |
| **Individualism** | | | | |
| | Australia | 1.51 | 0.609 | 85 |
| Q1 | Fiji | 1.88 | 0.756 | 205 |
| | Total | 1.77 | 0.734 | 290 |
| | Australia | 1.95 | 0.718 | 85 |
| Q2 | Fiji | 1.64 | 0.663 | 205 |
| | Total | 1.73 | 0.694 | 290 |
| | Australia | 2.07 | 0.794 | 85 |
| Q4 | Fiji | 1.44 | 0.689 | 205 |
| | Total | 1.63 | 0.775 | 290 |
| | Australia | 1.85 | 0.623 | 85 |
| Q8 | Fiji | 1.77 | 0.780 | 205 |
| | Total | 1.80 | 0.737 | 290 |
| **Masculinity** | | | | |
| | Australia | 1.87 | 0.682 | 85 |
| Q5 | Fiji | 1.64 | 0.691 | 205 |
| | Total | 1.71 | 0.695 | 290 |
| | Australia | 1.84 | 0.838 | 85 |
| Q7 | Fiji | 1.45 | 0.689 | 205 |
| | Total | 1.57 | 0.755 | 290 |
| | Australia | 2.37 | 0.827 | 85 |
| Q15 | Fiji | 3.24 | 1.033 | 205 |
| | Total | 2.99 | 1.054 | 290 |
| | Australia | 2.79 | 1.064 | 85 |
| Q20 | Fiji | 3.01 | 1.135 | 205 |
| | Total | 2.95 | 1.118 | 290 |

**Table 5.2b cont...**

| Cultural Value | Culture | Mean | Standard Deviation | N |
|---|---|---|---|---|
| **Long-term Orientation (LTO)** | | | | |
| Q9 | Australia | 1.75 | 0.669 | 85 |
| | Fiji | 1.52 | 0.623 | 205 |
| | Total | 1.59 | 0.644 | 290 |
| Q10 | Australia | 2.64 | 0.821 | 85 |
| | Fiji | 2.00 | 0.795 | 205 |
| | Total | 2.20 | 0.853 | 290 |
| Q11 | Australia | 2.13 | 0.643 | 85 |
| | Fiji | 1.78 | 0.731 | 205 |
| | Total | 1.88 | 0.723 | 290 |
| Q12 | Australia | 2.85 | 0.995 | 85 |
| | Fiji | 2.00 | 0.857 | 205 |
| | Total | 2.25 | 0.980 | 290 |
| **Additional Questions** | | | | |
| UA | Australia | 1.87 | 0.334 | 85 |
| | Fiji | 1.23 | 0.420 | 205 |
| | Total | 1.43 | 0.496 | 290 |
| Individualism | Australia | 1.91 | 0.291 | 85 |
| | Fiji | 1.06 | 0.235 | 205 |
| | Total | 1.33 | 0.470 | 290 |
| Masculinity | Australia | 1.77 | 0.423 | 85 |
| | Fiji | 1.13 | 0.340 | 205 |
| | Total | 1.33 | 0.472 | 290 |
| LTO | Australia | 1.83 | 0.380 | 85 |
| | Fiji | 1.11 | 0.315 | 205 |
| | Total | 1.34 | 0.474 | 290 |

**Table 5.2c: Results of Multivariate and Univariate Tests for Cultural Value Questions between the Australian and Fijian Professional Accountants**

| Cultural Value | Df | Sum of Squares | Mean Square | F | Significance Level |
|---|---|---|---|---|---|
| **Uncertainty Avoidance (UA)** | | | | | |
| Multivariate test | | | | 11.702 | 0.000*** |
| Univariate tests: | | | | | |
| Q13 | 1 | 1.112 | 1.112 | 2.396 | 0.123 |
| Q16 | 1 | 53.583 | 53.583 | 45.442 | 0.000*** |
| Q18 | 1 | 0.510 | 0.510 | 0.407 | 0.524 |
| Q19 | 1 | 0.055 | 0.055 | 0.042 | 0.838 |
| **Individualism** | | | | | |
| Multivariate test | | | | 22.288 | 0.000*** |
| Univariate tests: | | | | | |
| Q1 | 1 | 8.096 | 8.096 | 15.816 | 0.000*** |
| Q2 | 1 | 6.050 | 6.050 | 13.103 | 0.000*** |
| Q4 | 1 | 23.904 | 23.904 | 45.933 | 0.000*** |
| Q8 | 1 | 0.334 | 0.334 | 0.614 | 0.434 |
| **Masculinity** | | | | | |
| Multivariate test | | | | 16.534 | 0.000*** |
| Univariate tests: | | | | | |
| Q5 | 1 | 3.291 | 3.291 | 6.948 | 0.009*** |
| Q7 | 1 | 8.913 | 8.913 | 16.455 | 0.000*** |
| Q15 | 1 | 46.047 | 46.047 | 48.234 | 0.000*** |
| Q20 | 1 | 3.038 | 3.038 | 2.444 | 0.119 |
| **Long-term Orientation (LTO)** | | | | | |
| Multivariate test | | | | 16.875 | 0.000*** |
| Univariate tests: | | | | | |
| Q9 | 1 | 3.233 | 3.233 | 7.970 | 0.005*** |
| Q10 | 1 | 24.924 | 24.924 | 38.663 | 0.000*** |
| Q11 | 1 | 7.310 | 7.310 | 14.647 | 0.000*** |
| Q12 | 1 | 44.189 | 44.189 | 54.518 | 0.000*** |
| **Additional Questions** | | | | | |
| Multivariate test | | | | 184.755 | 0.000*** |
| Univariate tests: | | | | | |
| UA | 1 | 24.866 | 24.866 | 159.091 | 0.000*** |
| Individualism | 1 | 43.028 | 43.028 | 668.950 | 0.000*** |
| Masculinity | 1 | 24.238 | 24.238 | 179.030 | 0.000*** |
| LTO | 1 | 30.583 | 30.583 | 269.611 | 0.000*** |

*** Significant at $p < 0.01$

**Table 5.3a: Expected Differences in Mean Numerical Probabilities between the Australian and Fijian Professional Accountants in the Interpretation of In-context Uncertainty Expressions**

| IAS/IFRS | Uncertainty Expression | Context | Expected Numerical Probability |
|---|---|---|---|
| **H1a: Recognition of assets (or derecognition of liabilities) and increases in net income** | | | |
| IAS 23 *Borrowing Costs* | Substantially | Recognition of an asset | Fijian > Australian |
| IAS 36 *Impairment of Assets* | Significantly | Reversal of impairment loss | Fijian > Australian |
| IAS 16 *Property, Plant and Equipment (PPE)* | Probable | Recognition of PPE | Fijian > Australian |
| IAS 17 *Leases* | Substantially | Recognition of a finance lease (asset) | Fijian > Australian |
| IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* | Virtually certain | Recognition of contingent assets | Fijian > Australian |
| IAS 17 *Leases* | Sufficiently | Recognition of a finance lease (asset) | Fijian > Australian |
| IAS 38 *Intangible Assets* | Probable | Capitalization of costs that are part of intangible assets | Fijian > Australian |
| IAS 12 *Income Taxes* | Probable | Recognition of a deferred tax asset | Fijian > Australian |
| IAS 18 *Revenue* | Probable | Recognition of revenues | Fijian > Australian |
| IAS 20 *Accounting for Government Grants and Disclosure of Government Assistance* | Reasonable assurance | Recognition of government grants | Fijian > Australian |
| IAS 11 *Construction Contracts* | Probable | Recognition of construction contracts profits | Fijian > Australian |

**Table 5.3a cont...**

| IAS/IFRS | Uncertainty Expression | Context | Expected Numerical Probability |
|---|---|---|---|
| **H1b: Recognition of liabilities (or derecognition of assets) and decreases in net income** | | | |
| IFRS 3 *Business Combinations* | Probable | Recognition of a liability | Fijian < Australian |
| IAS 11 *Construction Contracts* | Probable | Recognition of construction contract loss as an expense | Fijian < Australian |
| IAS 17 *Leases* | Remote | Derecognition of an asset | Fijian < Australian |
| IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* | More likely than not | Recognition of a provision (liability) | Fijian < Australian |
| IAS 39 *Financial Instruments: Recognition and Measurement* | Substantially | Derecognition of a financial asset | Fijian < Australian |
| IAS 12 *Income Taxes* | No longer probable | Reduction of the carrying amount of a deferred tax asset | Fijian < Australian |
| IAS 31 *Interests in Joint Ventures* | Remote | Recognition of a Joint Venture contingent loss | Fijian < Australian |
| | | | |

**Table 5.3b: Results of Mean Numerical Probabilities, Multivariate and Univariate Tests between the Australian and Fijian Professional Accountants in the Interpretation of In-context Uncertainty Expressions**

| IAS/IFRS | Uncertainty Expression (context) | Fiji n = 200 | Australia n = 84 | Expected Direction | F | Significance Level |
|---|---|---|---|---|---|---|
| **H1 (overall)** Multivariate test | | | | | 3.474 | 0.000*** |
| **H1a** Multivariate test | | | | | 4.575 | 0.000*** |
| Univariate tests: | | | | | | |
| IAS 23 | Substantially (asset) | 65.21 | 75.14 | No | 7.787 | 0.006*** |
| IAS 36 | Significantly (impairment loss) | 61.91 | 59.88 | Yes | 0.388 | 0.534 |
| IAS 16 | Probable (asset) | 66.77 | 60.06 | Yes | 3.084 | 0.080* |
| IAS 17 | Substantially (finance lease) | 67.24 | 76.40 | No | 6.657 | 0.010** |
| IAS 37 | Virtually certain (contingent assets) | 68.07 | 83.42 | No | 17.732 | 0.000*** |
| IAS 17 | Sufficiently (finance lease) | 59.35 | 55.30 | Yes | 1.330 | 0.250 |
| IAS 38 | Probable (intangible assets) | 65.85 | 61.29 | Yes | 2.048 | 0.154 |
| IAS 12 | Probable (deferred tax asset) | 63.68 | 61.75 | Yes | 0.341 | 0.559 |
| IAS 18 | Probable (revenues) | 65.15 | 63.48 | Yes | 0.208 | 0.648 |
| IAS 20 | Reasonable assurance (government grants) | 66.64 | 68.73 | No | 0.390 | 0.533 |
| IAS 11 | Probable (construction contracts profits) | 64.86 | 62.70 | Yes | 0.516 | 0.473 |

**Table 5.3b cont...**

| IAS/IFRS | Uncertainty Expression (context) | Fiji n = 200 | Australia n = 84 | Expected Direction | F | Significance Level |
|---|---|---|---|---|---|---|
| **H1b** Multivariate test | | | | | 5.500 | 0.000*** |
| Univariate tests: | | | | | | |
| IFRS 3 | Probable (liability) | 63.28 | 59.92 | No | 1.168 | 0.281 |
| IAS 11 | Probable (construction contract loss) | 61.14 | 59.69 | No | 0.180 | 0.672 |
| IAS 17 | Remote (asset derecognition) | 47.75 | 30.26 | No | 18.417 | 0.000*** |
| IAS 37 | More likely than not (provision) | 62.81 | 60.45 | No | 0.622 | 0.431 |
| IAS 39 | Substantially (financial asset) | 66.17 | 74.22 | Yes | 5.610 | 0.019** |
| IAS 12 | No longer probable (deferred tax asset | 57.07 | 53.57 | No | 0.821 | 0.366 |
| IAS 31 | Remote (contingent loss) | 53.92 | 35.53 | No | 21.838 | 0.000*** |

*Significant at $p < 0.10$
**Significant at $p < 0.05$
*** Significant at $p < 0.01$

**Table 5.4a: Descriptive Statistics for the Influence of National Culture on Judgments of Professional Accountants**

| Scenarios | National Culture | Mean | Standard Deviation | N |
|---|---|---|---|---|
| Scenario 1: IAS 17 *Leases* | Australia | 4.48 | 1.720 | 86 |
| | Fiji | 4.62 | 1.407 | 204 |
| | Total | 4.58 | 1.505 | 290 |
| Scenario 2: IAS 23 *Borrowing Costs* | Australia | 5.03 | 1.575 | 86 |
| | Fiji | 4.66 | 1.750 | 204 |
| | Total | 4.77 | 1.706 | 290 |
| Scenario 3: IAS 12 *Income Taxes* | Australia | 3.92 | 1.596 | 86 |
| | Fiji | 4.04 | 1.320 | 204 |
| | Total | 4.00 | 1.406 | 290 |

**Table 5.4b: Results of Multivariate and Univariate Tests for the Influence of National Culture on Judgments of Professional Accountants**

| Scenarios | Df | Sum of Squares | Mean Square | F | Significance Level |
|---|---|---|---|---|---|
| Multivariate test | | | | 1.741 | 0.159 |
| Univariate tests: | | | | | |
| Scenario 1: IAS 17 *Leases* | 1 | 1.286 | 1.286 | 0.567 | 0.452 |
| Scenario 2: IAS 23 *Borrowing Costs* | 1 | 8.422 | 8.422 | 2.913 | 0.089* |
| Scenario 3: IAS 12 *Income Taxes* | 1 | 0.880 | 0.880 | 0.445 | 0.505 |

*Significant at $p < 0.10$

**Table 5.5a: Descriptive Statistics for the Influence of Organizational Culture (Big 4/Non-big 4) on Judgments of Professional Accountants**

| Scenarios | Organizational culture | Mean | Standard Deviation | N |
|---|---|---|---|---|
| Scenario 1: IAS 17 *Leases* | Big 4 | 4.86 | 1.407 | 100 |
| | Non-big 4 | 4.43 | 1.537 | 190 |
| | Total | 4.58 | 1.505 | 290 |
| Scenario 2: IAS 23 *Borrowing Costs* | Big 4 | 4.96 | 1.620 | 100 |
| | Non-big 4 | 4.67 | 1.745 | 190 |
| | Total | 4.77 | 1.706 | 290 |
| Scenario 3: IAS 12 *Income Taxes* | Big 4 | 3.94 | 1.377 | 100 |
| | Non-big 4 | 4.04 | 1.423 | 190 |
| | Total | 4.00 | 1.406 | 290 |

**Table 5.5b: Results of Multivariate and Univariate Tests for the Influence of Organizational Culture (Big 4/Non-big 4) on Judgments of Professional Accountants**

| Scenarios | Df | Sum of Squares | Mean Square | F | Significance Level |
|---|---|---|---|---|---|
| Multivariate test | | | | 2.396 | 0.068* |
| Univariate tests: | | | | | |
| Scenario 1: IAS 17 *Leases* | 1 | 12.025 | 12.025 | 5.389 | 0.021** |
| Scenario 2: IAS 23 *Borrowing Costs* | 1 | 5.371 | 5.371 | 1.851 | 0.175 |
| Scenario 3: IAS 12 *Income Taxes* | 1 | 0.614 | 0.614 | 0.310 | 0.578 |

*Significant at $p < 0.10$
**Significant at $p < 0.05$

**Table 5.6a: Descriptive Statistics for the Influence of National and Organizational Culture on Judgments of Professional Accountants**

| National Culture | Organizational Culture | Mean | Standard Deviation | N |
|---|---|---|---|---|
| Australia | Big 4 | 4.28 | 1.517 | 106 |
| | Non-big 4 | 4.62 | 1.812 | 146 |
| | Total | 4.48 | 1.699 | 252 |
| Fiji | Big 4 | 4.75 | 1.532 | 192 |
| | Non-big 4 | 4.31 | 1.508 | 416 |
| | Total | 4.45 | 1.529 | 608 |
| Total | Big 4 | 4.58 | 1.540 | 298 |
| | Non-big 4 | 4.39 | 1.597 | 562 |
| | Total | 4.46 | 1.580 | 860 |

**Table 5.6b: Tests of Between-Subjects Effects for the Influence of National and Organizational Culture on Judgments of Professional Accountants**

| Source | Df | Sum of Squares | Mean Square | F | Significance Level |
|---|---|---|---|---|---|
| Intercept | 1 | 13501.265 | 13501.265 | 5477.242 | 0.000 |
| National culture | 1 | 0.929 | 0.929 | 0.377 | 0.539 |
| Organizational culture | 1 | 0.457 | 0.457 | 0.185 | 0.667 |
| National culture*Organizational culture | 1 | 25.787 | 25.787 | 10.461 | 0.001*** |
| Total | 860 | 19218.000 | | | |

*** Significant at $p < 0.01$