

Auditor Professional Skepticism – A Cross-Cultural Study in the Global International Financial Reporting Standards Environment: The Case of Canada and Brazil

By

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ABSTRACT

The global financial reporting environment is undergoing significant change, with a global trend toward more countries adopting the International Financial Reporting Standards for public companies. Concerns exist as to potential barriers to harmonization, such as culture; therefore, it is important to draw on institutional mechanisms, such as auditing, to encourage compliance and harmonization. With this, there is a need to better understand the factors affecting the quality of such audits. Auditors' professional skepticism is a key factor in ensuring audit quality.

This exploratory quantitative study explores an area that is not well researched: specifically, the cross-cultural professional skepticism of auditors. Through a correlational design, the study provides insights as to whether auditors from different cultures make different skeptical judgments and decisions. This study also investigates whether prior research linking skeptical traits to increased professional skepticism in auditors is exportable from one culture to another.

The major finding of this study is that there is no significant difference in the professionally skeptical judgments and decisions of entry-level auditors from Canada and Brazil. Culture is not associated with the professional skepticism of these auditors. The study also highlights that skepticism, as a trait does not correlate with professional skepticism of auditors across all cultures, specifically in Canada and Brazil.

This study fills a major void in the literature concerning the study of cross-cultural professional skepticism and it extends prior research regarding the associations between skepticism as a trait and auditors' professional skepticism by investigating auditors from two very different cultures. This study provides insights that are relevant to practitioners such as

regulators, auditors and auditing firms, as well as academics in auditing, accounting, psychology and cultural studies.

Keywords: IFRS; Auditor Traits; Culture; Professional Skepticism

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Dedication

To those who love me unconditionally: my husband Brian and my two sons, Brock and Cory. Thank you for your unwavering support through this journey. You are everything to me. Lest I forget, three very important people in my life, my loving parents and my mother-in-law, it is upon your wings and through your prayers that this is possible and “Until we meet again, may God hold you in the palm of his hand” (Old Irish Blessing).

Table of Contents

ABSTRACT	ii
CHAPTER 1: GENERAL INTRODUCTION	1
Chapter 2: PROFESSIONAL SKEPTICISM AND CULTURE	7
2.0. Abstract	7
2.1. Introduction.....	8
2.2 International Financial Reporting Standards.....	10
2.3 Hurdles to Harmonization – Culture	15
2.4 The Enabler Stakeholder – The Auditor	22
2.4.1 The auditor’s task: professional skepticism	24
2.4.2 Auditing in foreign jurisdictions and the impact of culture	31
2.5 Culture and Professional Skepticism in IFRS-Compliant Jurisdictions	34
2.6 Research Questions and Development of Hypotheses	40
2.6.1. Research Question 1: Do differences in culture affect the professional skepticism of auditors with respect to their judgments and decisions?.....	40
2.6.2 Research Question 2: Do the skeptical traits of auditors from different cultures impact their professionally skeptical judgment and actions?.....	41
Chapter 3: RESEARCH METHODOLOGY.....	45
3.0 Abstract	45
3.1 Introduction	46
3.2 Research Design	47
3.4 Research Instrument	50
3.5 Measures	56
3.6 Measurement of the Dependent Variables	56
3.7 Measurement of the Independent Variables.....	58
3.8 Coding.....	60
3.9 Data Analysis	61
3.10 Study Procedures	62
3.11 Summary.....	63
Chapter 4: RESEARCH FINDINGS	65
4.0 Abstract	65
4.1 Introduction.....	66
4.2 Data Description.....	66
4.3 Participants’ Demographics.....	66
4.4 Results.....	67
Chapter 5: DISCUSSION OF THE FINDINGS.....	82
5.0 Abstract	82
5.1 Introduction.....	83
5.2 The Purpose of the Study	83
5.3 Discussion of the Findings	85
5.3.1 Professional skepticism and the auditors’ culture	85
5.3.2 Professional skepticism and auditor traits	95
Chapter 6: GENERAL CONCLUSION, LIMITATIONS AND FUTURE RESEARCH AVENUES	98
6.0 Abstract	98
6.1 Introduction.....	99
6.2 General Conclusion and Contributions	99

6.3 Limitations	103
6.4 Future research	104
REFERENCES	120

List of Tables

Table 2.1 <i>Canadian and Brazilian Index Scores and Rankings</i>	36
Table 4.1. <i>Demographic Characteristics of the Canadian and Brazilian Samples</i>	67
Table 4.2 <i>Comparison of Skeptical Judgments and Decisions in Canadian and Brazilian Samples</i>	69
Table 4.3 <i>Comparison of Professional Skepticism and Trust in Canada and Brazil</i>	72
Table 4.4 <i>Correlations between Trust Scores (Inverse RIT) and Skeptical Judgments and Decisions in the Canadian and Brazilian Samples</i>	73
Table 4.5 <i>Correlations between Professional Skepticism Scores (HPSS) and Skeptical Judgments and Decisions in the Canadian and Brazilian Samples</i>	74
Table 4.6. <i>Comparison of the Explanations in the Low and High Trust Groups in the Canadian and Brazilian Samples</i>	77
Table 4.7 <i>Comparison of the Explanations in the Low and High Professional Skepticism Groups in the Canadian and Brazilian Samples</i>	79

List of Exhibits

Exhibit 1.1 *The Corporate Reporting Supply Chain* 106
Exhibit 3.1 *Study Instrument* 107
Exhibit 3.2 *Letter of Consent*..... 118
Exhibit 3.3 *Ethics Approval*..... 119

CHAPTER 1: GENERAL INTRODUCTION

Global financial markets are becoming increasingly interwoven, with profound effects on stakeholders operating in these markets. To facilitate the proper functioning of these markets, there is a need for reliable and truthful financial information. Moving toward harmonized accounting standards is seen as a way to ensure that the financial stories are told in the same way globally. Potential barriers have been identified that may impede this movement, one of which is culture. Now, more than ever, there is a need for quality audits to ensure that decision-makers in this highly complex global market are using accurate financial information. A critical aspect of audit quality is the ability of auditors to exercise professional skepticism. In this era of globalization, there is a need to assess whether antecedents such as culture influence auditors' professionally skeptical judgments and decisions. Such is the purpose of this study. This cross-cultural study investigates the professional skepticism of auditors in Canada and Brazil.

The environment of corporate reporting has become more complex. Innovations in information, communication and transportation have led to changing business strategies and global integration, which impact financial statement assertions and the business risk of audited entities (Peecher, Swartz & Solomon, 2007). With this increasing complexity have come demands for greater protection for the users of financial statements. This demand has stemmed from the increasing evidence of financial statements' information being used to hide misconduct by corporate executives. Recent financial scandals involving companies such as Worldcom, Enron and Parmalat resulted from such companies using financial information to deceive users (Dibra, 2016). Failures such as these resulted in significant losses, both for investors and other stakeholders, including employees (Walker, 2005). Increased regulation, such as Sarbanes–Oxley

in the US (Linsley, 2003), established that society was unaccepting of these frauds (Peecher et al., 2007). The increased regulations imposed more accountability on the management of the firm for regarding the truthfulness of the information presented in the financial statements, with harsh penalties imposed for non-compliance. In addition, the role of the auditor was redefined inasmuch as they were now responsible for high assurance that the financial statements did not include any material misstatements, whether intentional or unintentional (Peecher et al., 2007).

At the same time, with global financial markets becoming more connected, there were calls for global convergence in financial reporting standards (Bernhart, 2008; Greiss, 2007). When the G20 leaders met in April 2009, to circumvent the possibility of another Great Depression, these leaders acknowledged the importance of accounting to the efficient operation of the global financial markets (Büthe & Mattli, 2011). The G20 leaders called on the International Accounting Standards Board (IASB), as the key global standard-setting organization, to improve the standards on valuation and provisioning to ensure the stability and, ultimately, growth of the global economy (Büthe & Mattli, 2011). The standards prescribed by the IASB are “principle-based” standards as opposed to more “rule-based” standards, requiring the exercise of professional judgment by accountants in their interpretation and application of the standards for the financial reports of their organizations. This call for countries to adopt these principle-based global accounting standards was heard.

With over 100 countries adopting International Financial Reporting Standards (IFRS) for public companies (Greiss, 2007), the global financial reporting environment is changing. As outlined above, the motivation for this change is the need for high-quality standardized accounting information to aid in the rapid integration of global capital markets; however, barriers to harmonization have been identified.

One barrier to ensuring the harmonization of global accounting information is culture. Concerns have been raised as to whether the interpretation and application of these standards are uniform on a global basis (Hodgdon, Tondkar, Adhikari & Harless, 2009). Suggestions have been made that institutional mechanisms, such as auditing, can overcome these barriers. Audits can help to overcome these barriers, provided they are of a quality nature.

The corporate reporting framework (American Institute of Certified Public Accountants, 2008) adapted and presented in Exhibit 1.1 outlines the three broad stakeholders in financial reporting: producers, enablers and consumers. This research will address the implications of adopting global standards for the stakeholders in the corporate reporting framework, with particular focus on the enablers (auditors). As it is the management's responsibility to prepare and present financial statements with an applicable financial reporting framework, like the IFRS, it is the responsibility of the auditor to ensure compliance with such standards. Public confidence in the financial statements is enhanced through the auditor's independent verification of this compliance. Through an independent audit of the financial statements, the auditor provides an opinion as to whether the management's financial statements are prepared, in all material respects, in accordance with a financial reporting framework such as IFRS.

In performing an audit, the auditor's role is to collect sufficient and appropriate evidence to determine whether the financial information reported is relevant and representatively truthful and compliant with the accounting standards. Many of the corporations that are audited are multinational publicly traded enterprises that operate globally in jurisdictions involving different national cultures, regulations and legal systems. In this environment, the auditor is increasingly more accountable for ensuring that the audits are of high quality. Two areas that have been highlighted as challenges to such quality are the auditors' professional skepticism and auditing in foreign jurisdictions (Canadian Public Accountability Board (CPAB), 2014).

To ensure quality audits, it is essential that auditors exercise professional judgment and professional skepticism (CPAB, 2014; Quadackers, Groot & Wright, 2014). In fact, professional skepticism has been highlighted by audit regulators as a factor affecting auditing quality in their inspections of audits for some time. (CPAB, 2012; Public Company Accounting Oversight Board, 2012). In Canada, the Canadian Public Accountability Board (CPAB) has consistently raised concerns about the lack of professional skepticism by auditing firms engagement staff in their annual inspections of audits performed by the CPAB. Professional skepticism is critical to ensuring an audit's quality. Understanding the elements that contribute to enhancing auditors' professional skepticism will contribute to a better understanding of to how to improve audit quality. Audit quality will help contribute to overcoming barriers to global standardization of accounting information. Elimination of such barriers will enhance the rapid integration of global markets.

This dissertation looks at the role of the auditor in audits of the financial statements prepared by the client's management in ensuring compliance with generally accepted accounting principles, specifically IFRS, through the application of international auditing standards. Specifically, the objective of this research is to shed light on the professional skepticism of auditors from different cultures. This research fills a significant void in the literature, where little is known about the impact of culture on the skeptical judgments and decisions of auditors (Hurtt, Brown-Liburd, Earley & Krishnamoorthy, 2013).

This research investigates the correlation between auditors' antecedents, such as culture and dispositional traits, and the professionally skeptical judgments and decision of entry-level auditors in this increasingly complex global reporting environment.

The research questions to be explored within this thesis can be summarized as follows:

1. Do differences in culture affect the professional skepticism of auditors with respect to their judgments and decisions?
2. Do the professional skepticism traits of auditors from different cultures impact their skeptical judgment and actions?

These questions represent problems that address real-world issues and require an interdisciplinary research approach. This approach is justified when researching multifaceted real-world problems that require one to draw on more than one discipline and other sources of knowledge to enable a more comprehensive understanding of the problem (Repko, 2012). These different disciplines and the background are presented in the next chapter.

The aim of this doctoral research is to explore the research questions and is structured as follows: Chapter 1 introduces the subject of the dissertation and highlights the research questions investigated. Chapter 2 provides a literature review and develops the hypotheses. Chapter 3 describes the research methodology, in which I present the research design and the steps followed for data collection. Chapter 4 provides the results of the study. Chapter 5 provides an analysis and discussion of the findings. Chapter 6 presents the main conclusion, as well as suggesting the contributions of this thesis to the body of knowledge and potential avenues for further research.

This chapter has provided an overview of the major questions this dissertation is seeking to answer. These questions address a gap in the literature that needs to be addressed: cross-cultural differences in the professional skepticism of auditors. The next chapter provides review of the literature relating to this area. This review highlights the role of accounting, auditing and accountability in the new global environment. The chapter discusses the movement towards the global harmonization of accounting standards; the hurdles hindering such progress, such as culture; the mechanisms supporting this harmonization, such as audits, and impediments to

auditing quality. This review establishes the purpose of this study investigating the cross-cultural professional skepticism of auditors in Canada and Brazil.

Chapter 2: PROFESSIONAL SKEPTICISM AND CULTURE

2.0. Abstract

The interconnectedness of global markets has given rise to calls for the harmonization of accounting standards to ensure that the economic realities are reported in the same language to ensure that global resource allocations and investment decisions are based on quality information. Challenges to ensuring that the financial stories told use the same financial language include differences between countries such as legal and tax systems, capital market sophistication, the political environment and culture. Audits are seen as important mechanisms to ensure the harmonization of global accounting standards. Audit oversight by Canadian regulators has identified areas that impact audit quality including auditors' professional skepticism and the reliance of auditors on the work of fellow auditors in foreign jurisdictions. This chapter provides an overview of the global financial accounting and auditing environment, and outlines the key research questions and hypotheses of this dissertation as an investigation into the influence of culture on auditors' professional skepticism.

2.1. Introduction

The period following the stock market crash that precipitated the Great Depression in the 1930s saw substantial growth in accounting rule-making at national levels. In many countries, rule-making authority was granted to private bodies, such as in the United States (US) (Anderson & Suzuki, 2014). In Canada, financial reporting was initially governed by common law but between 1946 and 1967, the Canadian Institute of Chartered Accountants issued bulletins that codified existing practices. In 1967, the Canadian Institute of Chartered Accountants was given authority to manage the standard-setting process (Richardson, 2011). This period saw the significant development of accounting as a profession and a discipline, with auditing becoming compulsory for publicly traded entities (Mattessich, 1994).

Since the 1990s, there has been increasing momentum towards harmonizing accounting internationally. This movement is considered to be part of a process of financialization, where accounting allows real markets to be converted, mainly by the private sector, into tradable components (Anderson & Suzuki, 2014). Some view this process as favorable for society, since it allows for capital to flow, supporting real markets and local societies over the long term; however, others view it as unfavorable, since it could lead to short-term profit-seeking by investors, resulting in long-term negative impacts (Anderson & Suzuki, 2014).

The role of accounting, auditing and accountability in society is significant, as it relates to global financial markets and the impact of such on the ordinary person. Recent financial crises and corporate scandals have had long-term effects on individuals, with millions of people losing life savings and jobs, and suffering a significant devaluation of their retirement incomes. In addition, there has been significant restructuring of the financial market caused by changes in the saving and borrowing practices of individuals (Langley, 2005). Individuals have replaced their

traditional savings practices of using high-interest savings accounts in banks with direct and indirect investment in the capital and equity market. By the late 1990s, over 50% of US households held stocks, the assets held by mutual funds in the US exceeded those of US banks and occupational pension practices grew significantly, surpassing all other forms of savings, with global pension fund values exceeding \$13,000 billion in 1999 (Langley, 2005). As Langley (2005) highlights, individual borrowing practices have also impacted the market through a major expansion in mortgage and consumer credit, with household liabilities growing to 74% of household income in G7 countries. This restructuring has resulted in greater risk exposure of the ordinary citizen. Given such risk, there is a need for truthful financial accounting information to facilitate proper operation of the market to reduce this risk.

The interconnectedness of global markets has given rise to calls for harmonization of accounting standards to ensure that economic realities are revealed using the same language. In light of the substantial risk associated with financial markets and economic globalization, financial reporting is facing increased scrutiny and more rigorous oversight through the introduction of increased global financial reporting regulations. The increase in supervision of financial reporting has not just been in terms of regulating the preparers of financial information, namely the corporate management, through regulations such as Sarbanes–Oxley in the US (Linsley, 2003) and Bill 198 in Canada (PricewaterhouseCoopers LLP Canada, 2004), but it has extended into increased oversight of auditing firms through the establishment of regulatory bodies such as the Public Company Oversight Board in the US, the Financial Reporting Council in the United Kingdom (UK) and the CPAB in Canada. Accounting and auditing have become more accountable in this regulated environment. Awareness of the role of accounting and auditing in society is important for providing context as to the impact that adopting IFRS has on the stakeholders in society, particularly the external auditors.

This chapter consists of several sections. The next section outlines the global movement to adopting the IFRS. The second section looks at impediments to the harmonization of global accounting standards, specifically, the impact of culture. The subsequent section looks at the role of auditing as an effective mechanism to ensuring the harmonization of global accounting standards. This section also highlights the challenges that affect the quality of these audits, namely professional skepticism and auditing in foreign jurisdictions. The final section of this chapter outlines the research questions that are explored in this dissertation, along with development of the hypotheses.

2.2 International Financial Reporting Standards

The Canadian transition to an international “common accounting language” marks a departure from the Canadian-developed Generally Accepted Accounting Principles (GAAP), which was the reporting standard in Canada for over 35 years (Bernhut, 2008). This conversion was spearheaded under the direction of the Canadian Accounting Standards Board when they announced in January 2006 that by January 1, 2011, “it will require companies reporting to Canadian province securities commissions to switch from Canadian GAAP, which follows US GAAP, to IFRS” (Sagafi-Nejad, Smith, Byrne, Gaskkin & Ngu, 2010, p. 6). This move is believed to be a transformational change that will have a significant impact on the way financial information is reported in Canada (Bernhut, 2008).

Movement towards a global standard began in 1973. Nine countries, including Canada, formed the International Accounting Standards Committee. In 2001, the IASB was formed with the mandate to develop the IFRS. The official objective of the IASB is to develop, in the public interest, a single set of high-quality, understandable and enforceable global accounting standards that require high-quality transparent and comparable information in financial statements and

other financial reporting to help participants in the world's capital markets and other users make economic decisions (Biondi & Suzuki, 2007).

The impetus of this movement was the globalization of markets and business. These standard-setters believed that an international standard “would deliver several key benefits: more transparent financial statements, better comparability of statements between and among countries and industries, increased market capitalization and risk rating through better comparative reporting, increased trust and a lower cost of capital” (Bernhut, 2008, pp. 26–27). The use of a common language was seen as a way of “ensuring businesses around the world to tell their financial stories in a consistent and directly comparable way. The theory is that common standards should make it easier for buyers, sellers and other stakeholders to compare companies across borders. This should encourage the free flow of capital, goods and labor across borders – something that would be especially beneficial for Canada's relatively small economy – and help bolster investor confidence” (Greiss, 2007). Over 110 countries now require or permit IFRS reporting for domestic, listed companies. Transitioning to these new standards has presented opportunities as well as costs.

Joshi (1998) itemizes several of the benefits of harmonizing global accounting standards through the adoption of IFRS, including facilitating international transactions, minimizing exchange costs, improving financial market information and enhancing the comparability of the financial statements of companies in different countries for credit and investment analysis. Bruce (2007) suggests that the greatest changes in globalization of accounting standards have occurred outside developed nations where the implementation of IFRS means the adoption of capital market reporting in jurisdictions where accounting was prepared primarily for tax-based systems. He highlights that IFRS users are realizing that there is greater comparability and disclosure, which was desired by the capital markets.

A major distinction of IFRS is the nature of the standards. IFRS are principle-based standards as opposed to rule-based standards. Generally, accounting standards can be thought of as a continuum. At one extreme, rule-based standards are considered to be more prescriptive, providing guidance on implementation that could include specific criteria that must be met, restrictions or exceptions (Gaa, 2007). Rule-based standards, which are characteristic of the US GAAP, attempt to tell preparers and auditors “what to do” (Alexander & Jermakowics, 2006). In sharp contrast to these rule-based standards are the principle-based standards, which are characteristic of the IFRS. These standards provide minimal or limited guidance as to how they should be applied. Alexander and Jermakowics (2006) indicate that principle-based standards do not tell the preparer and auditor what to do, but instead show how to decide what needs to be done. It is generally observed that principle-based standards rely primarily on the interpretation of the accounting standard by the preparer and thus require considerable exercise of professional judgment, with minimal guidance or rules.

Historically, accounting standards were established at the national level. In the US, the accounting standards established by the Financial Accounting Standards Board in cooperation with the Security Exchange Commission were characterized as rule-based. In the UK, the national accounting standards were considered to be principle-based. In Canada, given the influence of both the US and the UK, the standards established by the Canadian Institute of Chartered Accountants were viewed as representing a mix of both, with some suggesting that the Canadian standards were, in many instances, more rule-based (Chlala & Lavigne, 2009). The reason for this rule-based orientation was primarily because of the economic influence of the US, as both a significant trading partner and a major source of investment capital (Gaa, 2007); for example, by 1990, the US provided over 60% of foreign capital investment in Canadian stocks (Statistics Canada, 2019). Considering the significant ties with the US, the development of

accounting standards in Canada was greatly influenced by the need to align Canadian standards with those in the US (Gaa, 2007).

Adoption of the IFRS in Canada was a movement away from more rule-based standards towards more principle-based standards. Critics of the rule-based standards claim that these standards focus the preparer on compliance with the rule rather than the spirit of the rule. This could lead to literal interpretations to comply with the letter of the law rather than to capture the spirit of the underlying economics, creating an opportunity for structuring accounting transactions to comply with the rules but not the economic reality of the situation (Alexander & Jermakowics, 2006). Eaton (2005) indicates that financial catastrophes, such as the Enron scandal, resulted from preparers finding loopholes in the highly specified and detailed US rule-based standards. Eaton (2005) describes how, through creative interpretation of the accounting “rules” related to special-purpose entities, Enron accountants wrote off losses and debt to newly created partnerships. Through their financial “engineering”, the Enron accountants structured these entities in compliance with the prescribed rules to avoid recognizing these entities as subsidiaries, leading to Enron’s true financial position being concealed from investors (Eaton, 2005). Concern over such misleading accounting practices led to increasing support for principle-based standards. In 2003, the US Securities Exchange Commission called for the adoption of more objectives-oriented rules that would provide greater alignment with IASB principle-based standards (Eaton, 2005). There is growing support for principle-based standards globally, however, there are concerns that such standards will give rise to enforcement difficulties where there is more reliance on the professional judgment of preparers and auditors (Eaton, 2005).

With over 100 countries now requiring or permitting IFRS reporting for domestic companies listed on the stock market, transitioning to these new standards has been associated with reservations with respect to the adoption of common standards. Concerns have been raised

as to the utility of such a move, with some suggesting that convergence of these standards has been a useless exercise, since investment decisions were possible without it (Joshi, 1998). Additional criticism has been made over whether the IFRS, which uses fair value accounting, have increased the use of forecasting and estimates in accounting records (Biondi & Suzuki, 2007). Fair value or market valuation accounting, as represented in the IFRS, is a departure from the traditional historical cost accounting model and transforms the previous accounting model to a finance perspective, focusing more on the balance sheet valuations than the income results. Some researchers believe that adherence to the fair value concept in the valuation of balance sheet items causes the overstatement of profits, as they are being realized earlier than was the case with historical cost valuations based on book value (Biondi & Suzuki, 2007). It is also believed that the use of fair value accounting estimates made by preparers of financial statements are difficult to substantiate and validate, and thus may lead to fraudulent or misleading reporting (Smieliauskas, 2008). In fact, some suggest that fair value accounting could actually cause more risk in the global capital market (Biondi & Suzuki, 2007). It is clear that the movement to adopt the IFRS relies significantly on the professional judgments of accountants preparing the financial statements in accordance with the more principle-based standards, which has significant implications for auditors in their audits of these financial statements.

With this reliance on professional judgment, it is important to consider the factors that affect such judgments while recognizing that these aspects might negatively influence the global harmonization objective through a lack of consistent global compliance. The literature highlights the importance of developing institutional mechanisms (e.g. enforcement, corporate governance structures and auditing) to encourage compliance with the IFRS (Hodgdon et al., 2009). Causes of the differences in accounting between countries have been identified and include factors such as the culture, the economy, the legal system, capital market complexity, tax systems and the

political environment (Baker & Barbu, 2007). One barrier that has been investigated as a potential impediment to achieving the global harmonization of accounting standards is culture. This factor is the focus of the next section of this paper.

2.3 Hurdles to Harmonization – Culture

Some, such as Bruce (2007), believe that the movement towards adoption of the IFRS is as much a cultural as an accounting transformation. Since the adoption involves many very different national states and cultures, there is concern as to whether the financial reporting models and practices are universal or if they are influenced by differences in culture (Doupnik & Tsakumis, 2004; Doupnik & Riccio, 2006; Tsakumis, Cambell & Doupnik, 2009). It is interesting to note that the role of culture has been identified as a barrier in other industries seeking to harmonize standards on a global basis, such as the aviation industry.

In international aviation, it is recognized that there is a need for aviation crews to adhere to global crew resource management standard procedures and technical performance to ensure that safety is not compromised in order to minimize risk and manage human error (Helmreich, Wilhelm, Klinec & Merritt, 2001). Concerns have been raised as to the impact of culture on aviation crews' adherence to common operating standards in the cockpit (Helmreich, Merritt & Wilhelm, 1999). In commercial aviation, crew resource management is mandated in 185 member states of the International Civil Aviation Organization (Merritt, 2000). The impact of culture on the adherence to application of crew resource management systems has been well documented (Helmreich, Merritt et al., 1999; Helmreich, Wilhelm et al., 2001; Merritt & Helmreich, 1996). To ensure safety, crew resource management training programs serve to train crews to reduce pilot error through better interpersonal interactions by the flight crew. What became very apparent is that the adoption of training procedures from one culture did not export well to

airlines operating in other cultures (Helmreich et al., 1999). This is a particularly important concern, since crew performance has been identified as being responsible for more than 70% of hull loss aviation accidents (Merritt & Helmreich, 1996). Multiple behavioral factors have played a role in such failures, including individual skills, group performance, organizational priorities, the regulatory environment and national culture. Researchers have documented the impact of national culture as a factor leading to aviation crashes (Helmreich, 1994).

One example of this research is the evaluation of the 1990 Avianca Flight 052, flown by a Colombian crew, that crashed when flying into J.F.Kennedy Airport (Helmreich, 1994). Through a comprehensive system analysis utilizing Hofstede's cultural constructs, specifically individualism–collectivism and power distance, the researcher found that the culture of the flight crew negatively impacted the adherence to the standard crew training and operating procedures, leading to the fatal crash.

In her study of culture in the cockpit, Merritt (2000) found that “national culture still exerts a meaningful influence on attitudes and behaviors over and above the occupational context” (p. 299). The implications of her study are that a “one size fits all” approach to training may not be appropriate (Merritt, 2000) and there should be consideration of cultural differences.

Awareness of the implications of the “one size fits all” approach to instituting uniform standards across other industries, such as aviation, begs the question as to whether culture affects the objective of achieving consistent compliance with global accounting and auditing standards across different cultures.

To appreciate the implications of this question, it is important to understand what culture is. One definition of culture presented by Hofstede (2001) is that of recognized anthropologist C. Kluckhohn (1951). Kluckhohn highlighted that culture consists of patterned ways of thinking, feeling and reacting, which are acquired and transmitted mainly by symbols, constituting the

distinctive achievements of human groups, including their embodiments in artifacts. The essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their attached values. Cultural values and norms are regarded as powerful levers that direct and control human behavior (Mueller & Thomas, 2000).

Hofstede (1984a) views culture as “the collective programming of the mind that distinguishes the members of one group or category of people from another (p. 82)”. His work on national culture is one of the most acknowledged investigations in this area. Between 1967 and 1973, Hofstede studied international employees of IBM via a survey of employees’ attitudes, where he collected 116,000 questionnaires from 72 countries in 20 languages (Hofstede, 2001). Through a cross-country analysis of the data, Hofstede identified five common cultural constructs of national culture, including his initial four dimensions of power distance, individualism versus collectivism, uncertainty avoidance, and masculinity versus femininity. His later work uncovered a fifth dimension: long-term versus short-term orientation. Hofstede (2001) highlights that these dimensions are not ethnocentric in that the characteristics of one culture are not deemed to be superior over another. However, the dimensions illustrate that the values of one culture along a particular dimension may be different from those of another culture. A summary of each of the original four constructs is presented below.

Power distance is the degree to which members of a society accept hierarchical systems of power. In high power distance societies, there is deference to those in power and there is an acceptance of inequality among people. In such societies, there is great respect for those in authority. In lower power distance societies, power is more evenly distributed. Individuals in such societies are less accepting of inequalities.

Individualism versus collectivism is the degree to which members of a society have loose or tight social frameworks. In individualistic societies, the individual and immediate family is

prioritized, with loose social ties to any other social groups, including businesses or the government. Self-reliance, independence and self-sufficiency are viewed as strengths in individualistic cultures. In collectivist societies, there is greater concern for the value of organizations and society, exhibited by tight social frameworks. In such societies, the loyalty and conformity of members to their in-group are greatly valued.

Uncertainty avoidance is the degree to which members of a society are comfortable with ambiguity and unstructured situations. People in uncertainty-avoidant cultures rely on systems that provide more structure and rules and there is increased reliance on organizations, institutions and relationships to provide guidance that allow events to be interpretable and predictable. The focus in such societies is to avoid ambiguity or the unknown. In less uncertainty-avoidant societies, there is a higher acceptance of ambiguity.

Masculinity versus femininity is the degree to which members of society exhibit masculine or feminine emotional roles. Masculine societies accept masculine traits of achievement, assertiveness and material success over feminine characteristics of modesty and quality of life.

Hofstede's model of culture is used widely in management studies involving accounting, management and business ethics, as well as other social sciences (Clements, Neill & Stovall, 2010). This model has received wide readership and, according to the Social Science Citation Index, it has been "cited in more than 1800 articles in refereed journals from a large variety of disciplines" (Hofstede, 2001, p. 462). Although there is mixed empirical verification of his work and concerns have been raised over the validity of Hofstede's constructs of culture (Doupnik, 2008; Hofstede, 2001), Hofstede's model has been used in cross-cultural studies of accounting. A summary of some of this research is outlined below.

Culture has been found to influence the professional judgment of accountants. Some areas in accounting that have been investigated include standard setting (Shultz & Lopez, 2001), accountants' judgments (Doupnik & Riccio, 2006; Doupnik & Richter, 2003; Shultz & Lopez, 2001) and earnings management (Doupnik, 2008; Guan & Pourjalali, 2010; Han, Kang, Salter & Yoo, 2010).

In some cross-cultural studies involving accounting, Hofstede's cultural dimensions have been extended by Gray (1988). Gray developed a theoretical framework linking the relationship between Hofstede's cultural constructs and four accounting values: (1) professionalism versus statutory control, (2) uniformity versus flexibility, (3) conservatism versus optimism and (4) secrecy versus transparency. These values relate to accounting enforcement through professional self-regulation as opposed to legal and statutory control (professionalism and uniformity), accounting measurement (conservatism) and accounting disclosure (secrecy). Gray's framework suggests that cultural values influence accounting values and this ultimately affects the development of national accounting systems and standards (Doupnik & Riccio, 2006; Doupnik & Tsakumis, 2004; Heidhues & Patel, 2011).

Gray's framework, linked to Hofstede's cultural dimensions, is used extensively by researchers investigating international accounting systems (Baydoun & Willet, 1995; Doupnik & Riccio, 2006; Doupnik & Richter, 2003; Doupnik & Tsakumis, 2004; Tsakumis, 2007; Schultz & Lopez, 2001). This model has mixed support and some researchers are critical of its application to international accounting studies that rely on a narrow focus on measurement, quantification, simplification and categorization (Heidhues & Patel, 2011).

Despite the criticisms of both Hofstede's and Gray's models, many studies draw on these models when addressing possible connections between accounting systems and culture. In particular, these studies address the potential implications of the influence of culture where

“professional” judgment is required, leading to investigations into whether cultural differences cause accountants to interpret and apply accounting standards differently.

One such study by Douppnik and Riccio (2006) investigated the effect of culture on accountants’ judgment concerning contingency disclosure. Applying Gray’s theoretical framework, these researchers found that Brazilian accountants tended to be more secretive in disclosures of contingencies compared with US accountants. Their findings strongly support their hypothesis that “through its influence on the accounting value of secrecy, culture affects the interpretation of verbal probability expressions used to establish the threshold for when disclosures should be made (p. 254).” Douppnik and Riccio (2006) concluded that their study has negative implications for the consistent application of a common standard in different cultural areas, which could result in differences in recognition and disclosure decisions between countries.

Another study addressed accountants’ recommendations regarding warranty estimates in financial reporting. Cultural differences were uncovered where French and German accountants’ recommendations represented more conservative estimates than those of US accountants (Schultz & Lopez, 2001). In a more recent study, Tsakumis (2007) investigated differences between US and Greek accountants in their interpretation and treatment of one specific international accounting standard (IAS), IAS 37. This standard deals with contingent liabilities and contingent assets and involves considerable professional judgment by the accountant. Tsakumis (2007) highlights that differences were not found in the application of contingency recognition rules but there were differences in disclosure judgments, suggesting that culture affects disclosure associated with IAS 37, which could possibly hinder financial statement comparability across countries adopting the IFRS.

Douppnik (2008) looked specifically at the influence of culture on earnings management. In his study, he defined earnings management as the use of judgment in the preparation of financial statements with the intention to mislead the users of these statements as to the performance of the company or compliance with contractual agreements. His study involved a sample of 32 countries where culture was measured according to Hofstede's (1980) cultural dimensions. Douppnik (2008) found that culture is significant in explaining earnings management.

Corporate management is becoming more accountable for ensuring that financial statements are truthful representations of the economic events affecting the firm. Legislation such as Sarbanes–Oxley in the US requires chief executive officers and chief financial officers (CFOs) to certify the financial statements, with the consequence of criminal liability for knowingly violating the provisions of the legislation (Bargeron, Lehn & Zutter, 2010). Corporations should be aware of the effect of culture on interpretations of these financial standards. With the consolidation of reporting entities resident in different countries, with preparers from different cultures, multinational companies should be aware that culture can influence interpretations of accounting standards that are not uniform on a global basis. This could impact consolidated financial reports, given that there is a need to ensure that these statements are truthful representations of the economic events affecting these companies. Just as it is important for preparers to be aware of the influence of culture on the interpretation of accounting standards, this is also important for auditors.

The need for high-quality standardized accounting information to aid in the assimilation of worldwide capital markets is a key reason for the global harmonization of accounting standards. The use of a common language in financial reporting will make it easier for stakeholders to compare companies, thus increasing global investor confidence. Increasing global confidence and trust in this information will affect not only the operations of these financial

markets in developed countries but, by extension, may enhance the development in transitioning economies (Suzuki, Yan & Chen, 2007). Accounting represents a common language that, as asserted by Suzuki et al. (2007), “compels people to follow the rules of international economic society at the level of everyday life” (p. 670). For this common language to be interpreted correctly, there is a need to ensure that globally, these standards are applied consistently.

The movement towards global standards has significant benefits, but concerns exist as to potential barriers to global harmonization, such as culture. This section has reviewed the literature that relates to the influence of culture on the preparation of IFRS-compliant financial statements. The review highlights that culture influences the application of the standards in the preparation of financial statements. With calls for the harmonization of these global standards to achieve greater consistency and comparability, thus contributing to effectiveness of global markets, consideration of the methods of mitigating the impact of culture in achieving this goal is critical. In the next section, the role of the auditor and auditor traits that may play a role in mitigating the impact of culture are explored.

2.4 The Enabler Stakeholder – The Auditor

The “enabler” stakeholder (American Institute of Certified Public Accountants, 2008), the auditor, is the focus of my research. As previously noted, the literature highlights that statutory audits are an important mechanism to ensure compliance is the statutory audit (Hodgson et al., 2009). The objective of an audit is for the auditor to express an opinion as to whether the financial statements are prepared in accordance with a financial reporting framework such as the IFRS. Investors in the capital market need to rely on financial statements that are reliable, accurate and fairly present the financial position of corporations in compliance with a uniform set of accounting standards. The decisions made by these investors include different risks, one of

which is information risk. This risk reflects the possibility that the information used in decision-making was inaccurate (Arens, Elder, Beasley, Hogan & Jones, 2019). Financial statements that are compliant with a uniform set of accounting standards are critical for ensuring the users' understanding and for reducing information risk.

To audit effectively, auditors must be aware of the fact that there is a possibility that the management can act in a biased fashion with respect to their interpretation of accounting standards. Faithful representation of the financial statements has been a concern in practice, with many instances of earnings management and fraud by major corporations. Earnings management occurs when preparers intentionally choose to alter financial information to present more favorable financial results. The management's motivation to manage earnings could be self-serving in order to meet performance objectives linked to personal compensation or to meet financial benchmarking expectations of lenders or market analysts. Badertscher (2011) outlines three general methods that preparers could use to manage earnings. The first involves presentation of the financial information that is not reported in line with GAAP. This method represents fraud. The second is when the information is based on assumptions that lead to presentation that is altered to favor a particular direction that could enhance the financial position of the entity (e.g. minimizing the amortization expense to increase profits). The third method of earnings management is through taking action to change the timing or the structure of an economic transaction to affect the reporting of the financial position of the firm (e.g. offering incentives to customers to buy larger quantities of products near the year end to boost revenue and thus enhance profits). These later two methods do not violate a specific accounting standard, however, they result in reporting more favorable results. Awareness that the client management

may act in a biased fashion is important for auditors to understand when auditing financial statements prepared by the client.

Auditing has come under increased scrutiny over the last few years as a result of concerns that accountants and auditors failed to discharge their responsibilities in highly publicized frauds (Walker, 2005) and the impact of the audit in the market meltdown (Deuchars, 2010; Ojo, 2010). Concerns were also raised after the failure of one of the world's largest and most reputable auditing firms, Arthur Andersen LLP (Walker, 2004). In the past, public auditing was self-regulated by the profession, but this has since changed. There are new systems of independent oversight with the establishment of the Public Company Accounting Oversight Board in the US and the CPAB in Canada. Essentially, these boards have the mandate to audit the auditors to ensure effective regulation and promote quality audits.

The CPAB is responsible for conducting inspections of firms that audit publicly traded companies listed in Canada. In 2013, the CPAB's regulatory program included 164 Canadian and 133 foreign auditing firms. These auditing firms audit over 7000 reporting issuers, which are publicly traded companies that collectively have a market capitalization of over \$2.355 trillion (CPAB, 2013). The results of recent inspections have highlighted areas that remain challenging for auditing firms, including applying professional judgment, understanding and evaluating internal controls, auditing complex accounting estimates, auditing in foreign jurisdictions and executing professional skepticism (CPAB, 2014). The latter two challenges are the focus of my research, particularly the impact of culture on professional skepticism

2.4.1 The auditor's task: professional skepticism

When performing the an independent arms-length audit, the auditor does not verify all of the transactions recorded by the firm, since this would be both costly and time-consuming.

Instead, the auditor, must obtain sufficient evidence upon which to base his or her audit opinion. The auditor determines the amount of evidence by considering the risks associated with a specific audit. The major consideration of the auditor is to plan the audit to avoid the risk of providing an unqualified opinion on financial statements that are, in fact, materially misstated. The auditing process consists of eight phases: preplanning, client risk profile, audit planning, designing further audit procedures, substantive tests, ongoing evaluation and, finally, completion of the audit report (Arens et al., 2019)

During the audit plning phase, the auditor develops the audit assertions, using the audit risk model. The audit is segmented into cycles or closely related types of transactions, which include the sales and collection cycle, the payroll and personnel cycle, the acquisition and payment cycle, the inventory and warehousing cycle, and the capital acquisition and repayment cycle. In the planning stage, the auditor uses the audit risk model to assess the risk of misstatement (Arens et al., 2019). This model, as outlined in Arens et al. (2019), is represented algebraically as follows:

$$PDR = AR / (IR \times CR),$$

where *PDR* is the planned detection risk, *AR* is the audit risk, *IR* is the inherent risk and *CR* is the control risk.

Aren's et al. (2019) definitions of each factor are outlined below.

Planned detection risk is a measure of the risk that the auditing evidence will not detect material misstatements greater than the tolerable amount. The planned detection risk is a function of the auditor's assessment of the audit risk, inherent risk and the control risk.

Audit risk is a measure of how tolerant the auditor is of a chance of misstatement in the financial statements. If the auditor wants more assurance that the financial statements are not materially misstated, then the auditor will set a lower acceptable audit risk. The factors affecting

the auditor's determination of acceptable audit risk include reliance on the financial statements by external users, the likelihood of the client's financial failure and the integrity of the client's management.

Inherent risk is a measure of the auditor's evaluation that a material misstatement might occur before any consideration of the firm's system of internal control. In assessing the inherent risk, the auditor will consider items such as the nature of the client's business, the integrity of the management, the client's motivation, the results of previous audits and the existence of related parties. A higher inherent risk is appropriate when the auditor believes, based on the assessment of the factors, that a material misstatement may occur.

Control risk is a measure of the auditor's assessment that a material misstatement might occur that will not be prevented or detected by the client's internal control. A higher control risk exists if, through an evaluation of the client's system of internal control, the auditor believes that a misstatement may occur. Essentially, if the system of internal control is effective, then the control risk is reduced; if the system of internal control is ineffective, the control risk is increased.

Inherent risk and control risk are generally estimated for each cycle, account and audit objective, and usually vary from cycle to cycle. The tolerable level of audit risk is generally set by the auditor for the entire audit (Arens et al., 2019). Through an evaluation of the risks associated with a particular audit, the auditor will set a tolerable risk level that will form the basis for planning and completing the audit. Allen, Hermanson, Kozloski & Ramsay (2006) assert that the audit risk model is a risk management tool, which aids the auditor in gathering sufficient evidence.

As previously mentioned, the IFRS involve principle-based standards as opposed to rule-based standards. Principle-based standards require the application of professional judgment by

accountants in the interpretation and recording of economic events affecting the financial position of companies. The auditors, in performing the audit, must attest to whether the management's assertions represented in the audited financial statements present the company's financial position fairly.

To perform an audit effectively, the auditor must exercise due professional care. Part of this includes the auditor performing the audit with professional skepticism, which is essential for ensuring quality (Glover & Prawitt, 2014; Hurtt, 2010). Canadian Auditing Standards, which are the International Auditing Standards (ISAs), define professional skepticism as an attitude that includes a questioning mind, being alert to conditions that may indicate possible misstatement caused by error or fraud, and a critical assessment of audit evidence (Chartered Professional Accountants Canada, 2019). Lack of professional skepticism has been cited as a basis for malpractice claims against auditors (Anderson & Wolfe, 2002). In Canada, in their annual audit inspections, the CPAB has continuously raised concerns about the lack of professional skepticism by auditing firm staff (CPAB, 2017, 2016, 2015, 2014, 2013, and 2012). In particular, the CPAB has indicated that the quality of audit procedures would be improved as a result of increased professional skepticism (CPAB, 2012) and notes that this is especially important when the audit staff considers the risks of misstatements arising from fraud. Globally, audit inspectors have raised concerns as to the application of professional skepticism in practice, given findings that some auditors have not responded appropriately when faced with contradictory or inconsistent audit evidence, have placed great reliance on the management's representations, have sought evidence to collaborate and not challenge the management's assertions, or have accepted audit evidence that is unreliable (Audit and Assurance Board of Canada, Chartered Professional Accountants of Canada & the Institute of Chartered Accountants Australia, 2013). Higher professional skepticism leads auditors to expand their audit work, to increase their information

searches, to expect greater likelihood of fraud and to place greater weight on evidence of fraud (Peytcheva, Wright & Majoor, 2014). Quadackers et al. (2014) suggest that although there is no universally accepted definition of professional skepticism, there are two predominant views that are evident in the literature. The first view is that of neutrality. In this perspective of professional skepticism, the auditor does not assume any level of management bias, reflecting a “trust but verify” perspective in auditing. This view is the perspective that is most prevalent in the auditing standards (Glover & Prawitt, 2014; Nelson, 2009; Quadackers et al., 2014). Presumptive doubt is another view of professional skepticism. In this perspective, the auditor assumes some level of bias or dishonesty by the management, which focuses the auditor on the possibility of intentional material misstatement and requires the auditor’s judgment and actions to reflect a higher assessment of risk (Nelson, 2009). This view of professional skepticism implies that the auditor must seek out more persuasive evidence for the management’s assertions represented in the financial statements than what would be needed for the more trusting neutrality view (Nelson, 2009).

Glover and Prawitt (2014) suggest that professional skepticism be viewed as a continuum ranging from a more neutral position to a more presumptive doubt perspective. The authors highlight factors that should be considered by the auditor in moving along the continuum, including the level of risk, indicators of fraud, evidence of errors, the complexity of the judgments and inconsistency of the evidence with the initial risk assessment. The risk assessment is critical in determining the auditor’s skepticism mindset and actions, and directs the auditor to determine the appropriate level of gathering evidence. Glover and Prawitt (2014) acknowledge that there are factors that can impede the exercise of professional skepticism, such as judgment traps and biases, lack of knowledge and expertise, deadline pressure, inherited preferences and expectations, the auditor’s character, personal and cultural attributes, performance and

compensation metrics, and incentives that do not foster professional skepticism. Many of the factors outlined by Glover and Prawitt (2014) align with the model of professional skepticism proposed by Nelson (2009).

Nelson's (2009) model of auditor professional skepticism identifies factors contributing to skeptical judgment and actions. In order to exercise professional skepticism, auditors must first make a skeptical judgment that will then result in skeptical action. Evidence of skeptical judgment is when an auditor acknowledges that a potential issue may exist that will require more work or effort (Hurtt et al., 2013). Evidence of skeptical action is when the behavior of the auditor changes because of the skeptical judgment (Hurtt et al., 2013). In Nelson's model (2009), these components (skeptical judgment, and skeptical actions or decisions) are influenced by factors including audit experience and training, knowledge, incentives and traits. In terms of traits, Nelson (2009) discusses the qualities that contribute to an auditor's professional skepticism, specifically, problem-solving, ethics or moral reasoning and skepticism. He asserts that the current auditing standards generally direct the auditor to take an unbiased perspective, with the intent of confirming the management's assertions, or a "trust but verify" approach. This is a neutral perspective of professional skepticism. This neutral position is where the auditor does not presume the honesty or dishonesty of the management (Glover & Prawitt, 2014). Factors that would contribute to the auditor's exercising a more neutral viewpoint of professional skepticism would include situations where there is lower risk of misstatement or no indicators of fraud, or where little judgment is necessary (Glover & Prawitt, 2014). Movement away from this more neutral perspective towards a more doubting perspective would be the result of factors such as errors being detected, fraud indicators being present, the auditing evidence being inconsistent with the initial risk assessment, or situations requiring complex judgments (Glover & Prawitt, 2014). Quadackers et al. (2014) highlight that a presumptive doubt mindset is more visible in

auditing standards pertaining to areas that involve more reliance on the client management's professional judgment, such as with accounting estimates including fair value determination, or when concerns have been raised about fraud, where the focus is on intentional material misstatements. The authors explain that the aforementioned skeptical perspectives (neutrality and presumptive doubt) gauge an auditor's tendency or inclination toward skeptical judgments and skeptical decisions. Researchers have found that auditors with more skeptical traits exercise more professional skepticism judgments and decisions (Quadackers et al., 2014). Quadackers et al. (2014) measured the skeptical perspectives of neutrality and presumptive doubt on two scales. For the neutrality perspective, these researchers used the Hurtt Professional Skepticism Scale (HPSS), (Hurtt, 2010). For the presumptive doubt perspective, the researchers used the inverse of the Rotter Interpersonal Trust (RIT) scale (Rotter, 1967). Each scale is described in more detail below.

Hurtt (2010) developed a scale of professional skepticism for auditors. The scale was developed from philosophy, psychology, and consumer behavior literature, and auditing standards. Her scale proposes six characteristics that encompass professional skepticism, including a questioning mind, suspension of judgment, search for knowledge, interpersonal understanding, self-esteem and autonomy. Hurtt's scale consists of a 30-item psychological scale that was reduced from an initial pool of 220 questions drawn primarily from available psychological scales relating to the six skeptical characteristics. The scale represents a measure of professional skepticism as a trait that is representative of a neutrality perspective. Hurtt acknowledges that traits may encourage auditors to behave in certain ways but it is important to evaluate their professional skepticism and skeptical behavior. She highlights that the philosophy literature suggests that auditors will exhibit four behaviors when exercising professional skepticism: an expanded search for information, increased detection of contradictions and

increased generation of alternatives, and extended scrutiny of interpersonal information (Hurt, 2010).

The quality of trust has been viewed by some researchers as the opposite of skepticism (Quadackers et al., 2014), where less trusting individuals show evidence of greater skepticism. These researchers have looked to the inverse of the Rotter's trust scale (i.e. the RIT) to measure skepticism from the perspective of presumptive doubt. The RIT draws on the perspective of trust in social learning theory, where choice of behavior is seen as dependent on the expectation that a certain behavior will result in a particular outcome (Rotter, 1967). The scale is composed of 25 items scored on a five-point Likert scale.

It appears from the literature that certain traits, such as professional skepticism and the opposite of trust, relate to the auditor's abilities to exercise professionally skeptical judgments and decisions. A question that has not been adequately addressed is whether this holds true in all cultures. The next sections look at the literature as it relates to auditors in different cultures.

2.4.2 Auditing in foreign jurisdictions and the impact of culture

With the increased regulation of auditing work, there is a need for auditors to use appropriate models for collecting evidence that can substantiate that the auditors' work is of adequate quality. One key element in the auditing process is that of assessing audit risk, resulting in the determination of the extent of auditing work to be performed to allow the auditor to properly evaluate the compliance of the financial statement against accounting standards, such as the IFRS. In assessing this risk, a factor that may need consideration is culture, as it affects the professional judgment of the auditor.

In a series of studies conducted between 1999 and 2006, Arnold, Bernardi and Neidermeyer (2009) investigated whether auditing standards in the European Union, where auditing standards are harmonized, were applied the same across countries. By using Hofstede's (1980) cultural constructs along with Wingate's (1997) litigation indices for measuring a country's litigation risk, the authors conducted interviews and questionnaire surveys that reviewed auditors' applications of common auditing principles, including: "estimates of materiality, auditor independence, client confidentiality, time-budget reporting, as well as solutions to selected ethical dilemmas" (Arnold et al., 2009, p. 63). Using an experimental design in each of these studies, the researchers provided auditors from selected countries with specific auditing problems and asked what should be done if an auditor faced such situations during the course of an audit. The auditors were selected from Denmark, France, Ireland, Italy, the Netherlands, Spain, Sweden and the UK with approximately 300 auditors taking part in the studies. Arnold et al. (2009) found that there were "numerous between-country differences in how the auditors would act when faced with the scenarios presented with strong evidence that such differences were related to one or more pre-established country characteristic (cultural constructs or risk of litigation)" (p. 67). These findings prompted the authors to suggest that there is a need for international accounting firms to incorporate a national culture component in their audit staff training if there is to be consistent application of these harmonized auditing standards.

Cowperthwaite (2010) reiterates this concern about cultural awareness in his discussion of the need for understanding cultural dimensions as global auditors belonging to the International Federation of Accountants move towards adopting global auditing standards to be used in the auditing IFRS-compliant companies. Cowperthwaite's concern is that the new global standards are influenced by the culture of the architects of these standards, those architects being the

members of the International Auditing Assurance Standards Board (IAASB). He highlights that the cultural dimensions of these members are different from those of the global population. He suggests that because of this, these auditing standards may be culturally biased, which could cause varying cultural interpretations and applications of these global auditing standards by auditors who represent cultures different from that of the IAASB members. He cautions that there may be a need for “cultural translations” for many auditing requirements that call for considerable professional judgment or communication if they are to be applied consistently. What Cowperthwaite highlights is that there may be a need to evaluate whether a “one size fits all” approach is appropriate on a global scale, which has also been questioned in other industries (Merritt, 2000).

In ensuring that global financial reporting is consistent and comparable, statutory audits are an important mechanism (Hodgdon et al., 2009). Knowledge of whether culture may influence the professional judgment and skepticism of auditors would be essential to developing means to ensure compliance with the international auditing standards used to audit financial statements prepared with the IFRS.

As previously discussed, culture is seen as a barrier to harmonizing global accounting standards effectively. The implication for auditors of multinational firms is that accountants in domestic and foreign jurisdictions may not interpret or apply the IFRS in the same way. In addition, in many cases, domestic auditors may engage partner auditors in foreign jurisdictions to audit the financial information provided by the foreign operations of these multinational firms. Given the cross-cultural auditing studies discussed previously, it could be the case that the auditing work may not be performed in the same way in these different jurisdictions. If there is a lack of consistency between jurisdictions, it could impact Canadian auditing firms that are performing audits on multinational firms operating in global locations where the Canadian firms

rely on foreign component auditors to complete the audits of the multinational divisions located in foreign jurisdictions. Could culture impact these audits? This question forms the foundation of this study, as described in the next section.

2.5 Culture and Professional Skepticism in IFRS-Compliant Jurisdictions

2.5.1 Motivation

This study is an investigation of auditors' professional skepticism in a cross-national setting. There is a void in the literature that specifically contrast the professional skepticism of entry-level auditors from different cultures (Hurt et al., 2013). This study fills this void.

The first part of the study benchmarks Canadian auditors' and Brazilian auditors' professionally skeptical judgments and decisions. Although one other study has looked at the cross-cultural judgments of auditors that study did not look specifically at the professional skepticism of auditors in a cross-cultural setting and university students were used as proxies for entry level auditors (Hughes, Sander, Higgs & Cullinan, 2009). The research for this dissertation does look specifically at the professional skepticism of practicing entry-level auditor.

The second part of the study extends the work of Quadackers et al. (2014), which looked at skepticism traits, specifically the opposite of trust and professional skepticism. While Quadackers et al. (2014) investigated trait skepticism within one culture this study extends their work by investigating whether these two prominent traits linked to auditors exercising professional skepticism is the same for auditors in different cultures. Both Part 1 and Part 2 of this research is very important for advancing our knowledge in this area and is beneficial for the many stakeholders interested in the quality of audits crossing national borders.

With many Canadian corporations having foreign operations, there are concerns that what is acceptable reporting in some jurisdictions may be different from that in other countries. This impacts the comparability, consistency and harmonization of how the accounting standards are

interpreted, as well as how the auditing procedures are applied. The CPAB (2014) acknowledges that effective audit procedures used in Canada may not be effective elsewhere, given that each country has its own unique rules, regulations, business practices and customs. The CPAB (2014) also highlights that there continues to be audit deficiencies with respect to the exercise of professional skepticism by auditors. This exploratory study sheds light on the impact of culture on auditors' professional skepticism. To investigate whether there are cross-cultural differences in the professional skepticism of auditors, this study is conducted in both Canada and in Brazil.

A critical characteristic of quality auditing is for auditors to exercise professional skepticism. The question that this study addresses is: do differences in culture affect the professional skepticism of auditors with respect to their judgments and decisions? In addition, given the inference that professional skepticism is affected or influenced by an auditor's traits, this study investigates whether auditors from different cultures have differences in skepticism as a trait.

To help answer these questions, this research will draw on cultural studies, especially Hofstede's cultural theory, which is one of the most pervasive constructs used in cross-cultural psychology (Gladwell, 2008). Hofstede (1991) provided an index and rank for each country studied. In order to investigate whether differences exist, it is important to look at cultures that have significantly different cultural values. As previously mentioned, this study will investigate whether differences exist in the professional skepticism of auditors in Canada and Brazil, as the cultural dimensions of these two countries are in complete contrast to one another, as outlined in Table 2.1 below.

Table 2.1 Canadian and Brazilian Index Scores and Rankings

Cultural Dimension	Canada		Brazil	
	Index	Rank *	Index	Rank*
Power Distance (PD)	39	39	65	14
Uncertainty Avoidance (UA)	48	41-42	76	21-22
Individualism/Collectivism (IND)	80	4-5	38	26-27
Masculinity/Femininity (MAS)	52	24	49	27
Long term/Short-term orientation (L	23	30	65	6
*Rank out of 53 for PD, UA, IND; 52 for MAS, 33 for LT				

Source: Hofstede (2001, p. 500).

This table highlights the indices and rankings of each country investigated in Hofstede's study. The index score for each dimension is the country's mean score for the items in the survey used by Hofstede to measure each dimension (Hofstede, 2001). The rank indicates the relative rank of each dimension for each country in terms of the other 53 countries in Hofstede's work (2001). Hofstede (1991) indicates that differences in the scales of at least 20 points are considered significant. It is clear that this difference can be seen between Canada and Brazil for power distance, individualism–collectivism and uncertainty avoidance. Canada is characterized as having low power distance, high individualism and low uncertainty avoidance. Brazil is found to have high power distance, high collectivism and high uncertainty avoidance. A discussion of the Canadian and Brazilian indices, specifically, power distance, individualism–collectivism and uncertainty avoidance, and the potential implications of each of these cultural dimensions on the work of auditors is provided below.

2.5.2 Power distance

Power distance, as previously discussed, is the degree to which members of a society accept hierarchical systems of power. The measure of power distance is along a continuum ranging from high power distance to low power distance.

In high power distance societies, there is deference to those in power. Interpersonal relationships are framed within a hierarchy, whereby individuals are accepting of inequalities in power. In the auditing setting, the senior client management would be considered more powerful than the auditor (Patel, Harrison, & McKinnon, 2002). Those higher in the hierarchy command respect and there would be reluctance by those lower in the hierarchy to challenge or question such authority. In an auditing setting, power distance has been hypothesized to affect interactions between auditors and their clients (Hughes et al., 2013), whereby auditors may defer to more powerful senior client personnel and may be less willing to question the financial results reported by clients (Hurt et al., 2013; Patel et al., 2002; Yamamura, Frakes, Saunders & Ahn, 1996) to avoid being disrespectful. With a score of 65 (Hofstede, 2001), Brazil is a culture that has a high power distance, where inequality is the foundation of societal order (Hofstede, 2001). There is great respect for those in a position of authority because of age, gender, social position, title or economic status. In such a cultural milieu, auditors may view challenges or questioning of the client's representations as disrespectful.

With low power distance, inequality is less accepted, and hierarchical structure and power are more evenly distributed. Such cultures are unaccepting of inequalities (Hofstede, 2001). Canada's score of 39 represents a culture that has low power distance, where power is more evenly distributed, and inequality is deemed to be unacceptable. In low power distance societies, individuals, including auditors, would not have difficulty challenging the explanations provided

by the client's senior management (Hurtt et al., 2013). In this instance, such a challenge would not be a sign of disrespect.

2.5.3 Individualism and collectivism

Individualism versus collectivism is the degree to which members of a society have loose or tight social frameworks.

In collectivist societies, there is more significant concern for harmonious interpersonal relations and conflict avoidance (Patel et al., 2002). There is a disinclination to take actions that might negatively impact group relations, including relationships with customers. Brazil's score of 38 is representative of a collectivist culture. In such a culture, there is a greater proclivity to approach relationships with modesty and there may be an avoidance of confrontation. This tendency of conflict avoidance in an auditing setting could cause auditors from these societies to be more accepting of representations made by clients without seeking out contradicting explanations (Hurtt et al., 2013). Auditors from collectivist cultures place a greater emphasis on group loyalty and avoiding conflict within groups, with great concern about their long-term relationship with a client (Sims, 2010) and lower animosity (Lewis, 2000). Brazil's collectivist culture is different from Canada's individualistic culture.

In individualistic societies, social ties are loose. The focus of such cultures is on individuals' self-interest and those of their immediate family. There is less concern about avoiding conflict, and therefore, individuals in such cultures would be more inclined to challenge or seek information contradicting representations (Leung & Wu, 1990). Individuals in individualistic societies are more self-reliant and their assessments of others' judgments would have less influence on their own judgments (Patel et al., 2002). Canada's score of 80 is a very

high score for individualism. Auditors from individualist cultures are more able to ask clients tough questions (Hughes et al., 2009).

2.5.4 Uncertainty avoidance

Uncertainty avoidance is the degree to which members of a society are uncomfortable or comfortable with ambiguity and unstructured situations, and look to reduce ambiguity by establishing more guidance and rules by instituting more structure and bureaucracy. Brazil is a society that has a high uncertainty avoidance score of 76. Auditors in high uncertainty avoidance cultures have a lower tolerance for ambiguity and may be less comfortable with relying on professional judgments, focusing more on the adherence to rules (Hughes et al., 2009).

Auditors in low uncertainty avoidance cultures have a greater tolerance for ambiguity. In such cultures, auditors should be professionally self-confident and more comfortable about relying on professional judgment in more complex or uncertain situations. Canada has a score of 48, which is indicative of low uncertainty avoidance.

A key characteristic of quality auditing is for auditors to exercise professional skepticism. This study addresses the question of whether differences in culture affect the professional skepticism of auditors with respect to their judgments and decisions. The cultural dimensions of Canada and Brazil are very different in terms of power distance and individualism, as well as uncertainty avoidance. Traits, both personal and cultural, have been identified as factors that can impact professional skepticism (Hurt et al., 2013; Nelson, 2009). Investigation of whether professional skepticism is affected or influenced by an auditor's traits is the focus of this research, as outlined in the next section.

2.6 Research Questions and Development of Hypotheses

The research questions to be explored within this thesis can be summarized as follows:

1. Do differences in culture affect the professional skepticism of auditors with respect to their judgments and decisions?
2. Do the skeptical traits of auditors from different cultures impact their professionally skeptical judgment and actions?

These research questions and the hypotheses are discussed below.

2.6.1. Research Question 1: Do differences in culture affect the professional skepticism of auditors with respect to their judgments and decisions?

Given the discussion above on the cultural dimensions of Canada and Brazil, there is an expectation that there will be differences in the judgments and decisions of auditors from these two culturally distinct countries. In Brazil, with a culture that looks to avoid conflict and foster harmonious interpersonal relationships with clients, as well as the established acceptance of hierarchical structure and status, there may be greater deference to powerful clients. This deference is represented as greater agreement and less frequent challenging of the client's explanations in certain situations, resulting in the auditor exhibiting less professional skepticism. This is expected to be different from the situation in Canada where there is greater emphasis on the egalitarianism and individualism, and therefore, if the circumstances warrant a more skeptical investigation of the information, Canadian auditors would not acquiesce to the client for the sake of avoiding conflict or appearing disrespectful. Consideration of these differences leads to the first hypothesis explored in this study, which is a null hypothesis:

Hypothesis 1: The skeptical judgments and decisions of auditors in Canada will not be significantly different from those in Brazil.

While researchers have studied professional skepticism, most of this research has been done in the United States, with little to none conducted in Canada and Brazil. In addition, increasingly over the last two decades researchers have given increasing attention to the impact of culture on accountants and auditors however, there still remains a void in the literature as to whether culture influences the professional skepticism of auditors in different cultures (Hurt et al., 2014). This exploratory study is the only study that looks at differences in professional skepticism judgment and decisions of entry-level auditors in two very different cultures.

This section outlined the basis for the first research question and hypothesis. The following section identifies the second research question and hypothesis.

2.6.2 Research Question 2: Do the skeptical traits of auditors from different cultures impact their professionally skeptical judgment and actions?

This study also looks at whether auditors from different cultures have variations in their skepticism as a trait and their skeptical judgments and decisions. The two skeptical traits investigated are low trust and high professional skepticism. Given links in the literature between these traits and the levels of professional skepticism judgments and decisions of auditors, this research proposes that auditors with less trusting traits and more skeptical traits will make more skeptical judgments and decisions than auditors with more trusting and less skeptical traits. The question is whether this pattern holds true in cultures that are different.

The literature on professional skepticism finds that skeptical characteristics impact an auditor's professional skepticism. Quadackers et al. (2014) indicate that the theory suggests there is positive a link between an auditor's skeptical judgments and decisions and the auditor's skeptical disposition. Their study found that auditors who are less trusting and have a more

skeptical disposition exhibit more professionally skeptical judgments and decisions. The literature suggests that less trusting auditors exhibit more questioning minds (Shaub, 1996) and appear to be more skeptical by generating more explanations (Rose & Rose, 2003). Rose (2007) found that auditors who are less trusting focus more on evidence of aggressive reporting, and these auditors were more likely to believe that intentional misstatements have been made by the management. Quadackers (2009) highlighted that less trusting auditors made more professional skepticism judgments and decisions. Given the findings linking skeptical traits with skeptical judgments and actions, Quadackers et al. (2014) suggest that screening for such traits could be useful in screening when hiring entry-level auditors. Their research, however, has not determined whether this holds true in different cultures. In fact, the previous research has been on auditors with similar cultural dimensions to Canada, such as the US (Rose, 2007; Rose & Rose, 2003; Shaub, 1996) and the Netherlands (Quadackers, 2010; Quadackers et al., 2014). The question, therefore, is whether these traits and their relationship to auditors' professional skepticism judgments and decisions hold true in other cultures that are different from those that have been researched previously.

Hypothesis 2: Auditors that exhibit low trust and high skepticism traits will make significantly more professionally skeptical judgments and decisions, regardless of their cultural dimensions.

Trust, specifically the lack thereof, has been viewed as an auditor trait that has been linked to the professional skepticism of auditors. This is also true of the Hurtt Professional Skepticism scale. Much of the research done in this area has been done in United States or in cultures similar to the United States. This study extends the work of Qudackers et al, (2014), by looking at whether these traits correlate with professional skepticism judgments and decisions in other cultures. In particular the Latin American culture, an area that has very little research in

auditing studies. This part of the study fills that gap by determining whether what is found in some cultures extend to other cultures.

The research completed for this dissertation enhances the understanding of auditor professional skepticism. This study contributes to the literature on both the theoretical and practical levels. On a theoretical level, the study adds to the literature by empirically testing Nelson's (2009) model of professional skepticism and the applicability of traits as a predictor of professional skepticism, explicitly addressing the question of whether culture impacts the professional skepticism of auditors. This study fills a void in the literature by investigating professional skepticism in a cross-cultural setting. This study also extends the literature on trait skepticism by investigating whether the traits found to favorably relate to skeptical judgments and decisions are common in other cultures. On a practical level, this study verifies whether auditors of different cultures apply similar levels of professional skepticism and have similar skeptical traits. This research opens the door for further studies exploring culture as an antecedent of professional skepticism. Research on cross-cultural differences in auditing is very important for understanding the role of audits in ensuring the harmonization of financial reporting as a means of ensuring that the financial stories of corporations operating on a global basis are reported consistently. This research is critical for investors who are making investment decisions in corporations that cross national borders. This research is important for oversight bodies, such as the CPAB, as they investigate the barriers to auditing quality. This cross-cultural research is also vital for auditing partners and managers to ensure that the results of the audit are consistent across national boundaries. Only with the assurance that an audit is performed consistently, especially across cultures, can audit quality be ensured.

The research method used to answer the questions proposed in this thesis is outlined in the next chapter. By applying the constructs of Hofstede's (2001) cultural dimensions, a quantitative study is undertaken to assess whether the cultural predispositions of entry-level auditors in Canada and Brazil and the impact of these predispositions on their professionally skeptical judgments and decisions. The next chapter highlights the participant selection criteria,

the research methods, the research instrument and the study procedures used to investigate the professional skepticism of auditors of different cultures.

Chapter 3: RESEARCH METHODOLOGY

3.0 Abstract

This chapter presents a discussion of the research methodology used to test the hypotheses of my dissertation. My research is a quantitative study that investigates the professional skepticism of auditors from different cultures to determine whether there is a difference in their skeptical judgments and behaviors. In this chapter, I describe the research methodology including the research design, the participants, the research instrument, and the measures and procedures.

3.1 Introduction

The primary objectives of this research are to assess whether differences in culture cause auditors in different countries to audit the financial statements prepared with the same financial reporting standards (the IFRS) differently. The importance of this study is to obtain a better understanding of the factors affecting the auditing quality of IFRS-compliant financial statements, which are meant to ensure consistency in financial reporting by entities in different jurisdictions. The importance of understanding the influence of culture on decision-making cannot be understated. As outlined by Weber and Hsee (2000), rapid globalization dictates the need to understand cross-national differences in perceptions, beliefs or modes of processing information. These authors cite the observation of Hofstede that “the survival of [human]kind will depend to a large extent on the ability of people who think differently to act together. International collaboration presupposes some understanding of where others’ thinking differs from ours” (Hofstede, 1984a, p. 277).

This chapter consists of several sections that describe the research methodology used to test the hypotheses of this dissertation. The next section outlines the research design and the questions addressed in this research. The following section describes the criteria used in selecting the study participants. The subsequent section discusses the study instrument used, the translation procedures, and how the answers were coded. This section also outlines the data analysis plan for addressing the research questions in this cross-cultural study. The research procedures are outlined in the penultimate section of this chapter and the final section provides a summary of the chapter.

3.2 Research Design

This study is an exploratory cross-cultural study of auditors' professional skepticism judgments and decisions. The research is a quantitative study with a correlational design to evaluate whether auditors from different cultures have differences in their professionally skeptical judgments and decisions. The study is also designed to evaluate whether skeptical traits impact professionally skeptical judgments and decisions.

Adopting a theoretical framework for structuring research activities regarding cross-cultural risk and decision-making (McDaniels & Gregory, 1991), this study compares individuals by using a between-subject design that explores whether auditors from different cultures make different skeptical judgments and decisions. This study also explores whether skeptical judgments and decisions are correlated with traits of skepticism, specifically, lack of trust and professional skepticism traits.

This study draws on Nelson's model of professional skepticism (Nelson, 2009). His model asserts that an auditor's skeptical judgments and decisions are impacted by his or her incentives, knowledge, experience and dispositional characteristics. This dissertation investigates the relationship between dispositional characteristics, specifically, cultural tendencies and the skeptical judgments and decisions of auditors.

3.3 Participants

As previously discussed, in the adoption of global accounting standards, audits are seen as an important mechanism to ensure compliance. Audit oversight boards, such as the CPAB in Canada, have raised concerns over factors that can compromise auditing quality. Two of these factors include the lack of professional skepticism in auditors and the reliance on component

auditors in foreign jurisdictions who perform auditing work on Canadian corporations' subsidiaries operating internationally. The CPAB has also raised concerns about the professional skepticism of entry-level auditors. This study investigates these factors, which are identified as potential areas that need to be addressed in such audits. For this research, the participants in the study were selected according to the following criteria: organizational membership, job title, cultural distinctiveness, and practice in auditing the same accounting standards (the IFRS). The rationale for these criteria is outlined below.

In auditing international operations, Canadian auditors may rely on the work of component auditors in foreign nations. These component auditors can be auditors who are in another firm or affiliate auditors of the same firm. The CPAB has found that in audits in foreign jurisdictions, auditors regularly failed to detect and evaluate the risks of material misstatement and they did not exercise professional skepticism when they encountered evidence of potential fraud risk.

In Canada, the Big Four (KPMG, PwC, E&Y, Deloitte) auditing firms are primarily responsible for the audits of most Canadian publicly traded multinational entities operating on the global stage. These Big Four firms conduct audits on more than 60% of all publicly traded companies, representing more than 90% of Canada's market capitalization (CPAB, 2014). Canadian publicly traded companies have a market capitalization in excess of \$2.3 trillion (CPAB, 2013). The participants in this study include auditors from a Big Four multinational accounting firm, given that they are more likely to be involved in auditing corporations with global subsidiaries. Selecting the subjects from one of the Big Four auditing firms allows for control over firm-specific characteristics, such as recruitment, training and industry specialization.

The CPAB's 2014 inspection report (CPAB, 2014) identified areas of persistent challenges, including the professional skepticism of entry-level auditing staff. The CPAB noted that up to 80% of auditing staff with fewer than 5 years of experience perform work. To investigate the professional skepticism of entry-level auditors, the participants recruited for this study are staff-level working auditors. Many previous studies on entry-level auditors have focused on recruiting university or college students (Hughes et al., 2009; Pepova, 2013) to proxy entry-level auditors; however, since Hofstede's cultural values were developed from a workforce analysis, it was important to recruit the participants from a workplace setting.

This study is a cross-cultural evaluation of auditors' professional skepticism, using entry-level Canadian auditors as the benchmark. To determine whether professional skepticism is influenced by culture, it is crucial to compare auditors from distinctly different cultures. To identify cultures that are distinctive from Canada, this study draws on Hofstede's cultural study (1991). Hofstede's cultural dimensions of power distance, uncertainty avoidance and individualism–collectivism (see Section 2.5) were used to identify cultures that are different from Canada. To allow for a cross-cultural comparison with Canadian auditors, Brazilian auditors were selected because of the markedly different index scores and rankings with respect to Hofstede's cultural dimensions, as identified in Table 2.1 in Chapter 2. As shown in Sections 2.5.1, 2.5.2 and 2.5.3, respectively, the cultural dimensions of power distance, uncertainty avoidance and individualism–collectivism, Canada's index scores (30, 48 and 80) are markedly different from Brazil's (65, 76 and 38, respectively). In light of Hofstede's theory of cultural dimensions, these scores illustrate significant differences between these two cultures. Canada's rankings for these dimensions in terms of the 53 countries are 39 for power distance, 41 for uncertainty avoidance and 4 for individualism–collectivism, whereas Brazil's rankings are 14 for power distance, 21 for uncertainty avoidance and 26 for individualism–collectivism.

In addition to cultural distinctiveness between Canada and Brazil, the participants selected are from countries that have adopted the IFRS for reporting entities listed on their stock markets, thus ensuring that the auditors are familiar with the same principle based accounting standards. In addition, since Brazil and Canada both adopted these standards in 2010 and 2011, respectively, the auditors recruited are from countries that have a similar length of experience with these standards. As such, participants from Canada and Brazil audit financial statements prepared in compliance with the same accounting standards, and the auditors' familiarity with these standards is generally similar.

In summary, the participants in the study were selected on the basis of the following criteria: organizational membership, entry-level auditors, cultural distinctiveness and jurisdictions using the IFRS. Convenience sampling was used, where the national offices in each country were contacted and asked to identify potential participants for the study.

3.4 Research Instrument

This exploratory study addresses whether entry-level auditors' professionally skeptical judgments and decisions are different in different cultures. In order to address this, it is important to understand what constitutes the professional skepticism of a skeptical auditor and to use an instrument that captures measures of this. Glover and Pratt (2014) propose a professional skepticism continuum, ranging from neutral to presumptive doubt and then to complete doubt. Movement from a neutral position toward higher levels of professional skepticism would be a function of factors such as evidence of higher risk and suspicions of a material misstatement, fraud indicators, errors detected, complex judgments and auditing evidence that is inconsistent or contrary to the initial risk assessment. A key characteristic of a skeptical auditor is one with "an attitude that includes a questioning mind" (Glover and Pratt, 2013, p. 4). In order to evaluate the

professional skepticism exercised by auditors, it is important to use an instrument that is modeled to allow an auditor to make skeptical judgments and decisions. The instrument selected for this cross-cultural study is one that has been used to do just that, and therefore, this dissertation employs the case analysis and study instrument used by Quadackers (2009).

Quadackers (2009) developed a survey instrument designed to assess the impact of skeptical traits on auditors' professionally skeptical judgments and decisions. Specifically, his study investigated skepticism as a trait and the impact of this on the professional skepticism of auditors. His study also explored whether the auditing environment influenced the level of professional skepticism. His findings revealed that the professional skepticism of auditors was most notable when the auditing environment was considered to be weak.

Quadackers' study adapted an analytical procedures auditing case developed by Peecher (1996). In this case, the study participants take on the role of an auditor of a fictitious pharmaceutical manufacturer and conduct an analytical review of the income statement's gross margin (sales less cost of goods sold). The company is reporting an unexpected increase in its gross margin for the current year. The company's CFO indicates that this increase is the result of a change in the sales mix, where there has been a shift in sales to higher-margin products. Quadackers studied the judgments and decisions of auditors under two auditing conditions: a weak and a strong internal control environment. The description of the control environment is based on the work of Cohen and Hanno (2000). In auditing, the control environment consists of the client's standards and processes, and the structures that are the foundation for internal control across the organization. The impact of the control environment on the professional skepticism of the auditor is such that as the control environment weakens, the auditor's professional skepticism

should increase. Quadackers (2009) found evidence that the skeptical judgments and decisions increased in weak control environments relative to strong control environments.

The case focuses on the use of analytical procedures in auditing. Such procedures require auditors to use professional judgments (Hughes et al., 2009). In analytical procedures, the auditor forms expectations about balances in the financial statements prior to reviewing the unaudited balances provided by the client. These expectations would be based on the auditor's understanding of the client and the client's industry, using sources of information such as the financial information for comparable prior periods or the patterns of financial information with regard to the client's industry. Once these expectations have been formed, these amounts are compared with the client's unaudited balances. If material differences exist between the actual and estimated balances, the risk assessment should be high. The differences are material if they could be expected to influence the economic decisions of users relying on the reporting entity's financial information. (Arens et al., 2019). In the case used in this study, the client's background describes circumstances suggesting there may be increased concern over the reliability of the management's representations. This concern could suggest that the unaudited account balances could be materially misstated. When the audit risk is high, the auditor should exercise a higher level of professional skepticism (Glover & Prawitt, 2014).

This study uses Quadackers' (2009) instrument, which has adapted by Quadackers from Peecher's (1996) case and Cohen and Hanno's (2000) background depicting the weak control environment. Quadackers' (2009) instrument was chosen because it effectively investigates auditor's judgments and decision-making process, as well as auditor's dispositional trait skepticism. In Quadackers' study, participants were from the Netherlands, which is a country with similar cultural dimensions to Canada (Hofstede, 2001). Although the instrument was not

developed for cross-cultural use, it does lend itself to the requirements of translation, since the study was delivered in both English and Dutch. Use of this established instrument for a cross-cultural comparison permits the evaluation of whether, at the cultural level, there are similarities or differences in the professional skepticism of auditors, which is the aim of this dissertation research. This research is an extension of Quadackers' (2009) work. This study also investigates whether auditors' skepticism as a trait and its relationship to auditors' skeptical judgments and decisions extends to other cultures. A copy of the research instrument used for this study is provided in Exhibit 3.2.

The research instrument for this study consists of three parts. The first part includes the case involving analytical procedures along with the questions the participant is asked to answer concerning the case. The second part of the instrument assesses skepticism as a trait via two skepticism trait inventories: the RIT and the HPSS. The third part of the instrument looks at the demographics and follows up with additional questions concerning the case. A description of each part is provided below.

In the first part, the participant is asked to take on the role of the auditor of the company performing analytical procedures during the audit planning phase. The task of the auditor is to assess the reasonableness of the unaudited financial information as it relates to determination of the gross margin on sales. The auditor is asked to evaluate the client's assertion that the gross margin had increased because of a change in the sales mix, where more higher-margin products were sold than had been the situation in the past. The auditor must determine whether they will accept the client's explanation or, if not, provide alternative explanations as to why there was such a favorable result. The case involves the auditor performing analytical procedures. In auditing, analytical procedures require auditors to use professional judgments (Hughes et al.,

2009) and form expectations of the current year's balances in the financial statements as explained above. The auditor's expectations would be based on the consideration of such things as the auditor's understanding of the client and the client's industry, while using sources of information such as the financial information for comparable prior periods. Once the expectation is formed, the balances are compared with the client's unaudited balance. If differences exist, the auditor evaluates the significance of such differences in terms of materiality. In financial reporting, information is considered material when it is determined that if it is omitted or misstated, it could influence the economic decisions of users relying on the reporting entity's financial information. If material differences exist between actual and estimated amounts determined by the auditor, the auditor's risk assessment should be high. In addition, the case background provides details that depict a high control risk environment. Under such circumstances, professional standards require that the auditor to act with increased professional skepticism (Quadackers, 2009)

The facts in the hypothetical case indicate the client's reported gross margin is higher and more favorable than what should be expected based on the prior year's results. The client CFO provides a reason for the increase. He states that the margins increased because the company sold more higher-margin products in the mix of products sold that year, compared to results in prior years. Although the client is generally seen as an important source of explanations as to the reason for unexpected deviations from what would be expected (Quadackers et al., 2014), given that the control risk is high, the auditor should view the client's explanation with greater skepticism making more skeptical judgments and decisions. It is in situations where judgment must be used that Hofstede (2001) noted that the impact of culture would be most significant.

This case allows the opportunity to measure whether auditors of different cultures make different skeptical judgments and decisions.

The second part of the instrument incorporates two personality trait inventories measuring skepticism. These include the HPSS and the RIT scale. These two scales represent measures of the independent variables, specifically auditors' skepticism as a trait. In Quadackers et al. (2014), both the HPSS and RIT were found to be related to skeptical judgments and decisions. These researchers found that auditors with higher HPSS scores and lower trust scores exhibited higher levels of skeptical judgments and decisions. These findings were based on a sample of auditors in the Netherlands who have similar cultural dimensions to Canadians. The study of Quadackers et al. (2014) did not explore whether these findings held true for auditors who have cultural dimensions different from the Dutch, such as Brazilians.

The final part of the instrument contains questions pertaining to demographic variables such as gender, years of auditing experience, job title, education, training, etc. These represent independent variables. Some additional questions concerning the case are also presented. This part also contains a question that asked the auditor to evaluate the likelihood of fraud, which is the sixth dependent variable.

The survey instrument was translated from English to Brazilian Portuguese according to the guidelines for cross-cultural studies (Behling and Law, 2000) using translation and back-translation procedures to verify the veracity of the instrument. The translation was done initially by a professional translation service. The translated instrument was then reviewed by professional auditors whose first language is Brazilian Portuguese to ensure the accuracy of the translation. Differences were reviewed and reconciled, leading to the production of a final translated version

of the instrument. The Brazilian Portuguese version of the instrument was then back-translated by a different professional translation service to ensure that the translated document captured the same meaning in English.

3.5 Measures

As discussed in Chapter 2, the research questions and hypotheses explored in my thesis include the following:

Research Question 1: Do differences in culture affect the professional skepticism of auditors with respect to their judgments and decisions?

Hypothesis 1: The skeptical judgments and decisions of auditors in Canada will not be statistically different from those in Brazil.

Research Question 2: Do the skeptical traits of auditors from different cultures impact their professionally skeptical judgment and actions?

Hypothesis 2: Auditors that exhibit low trust and high skepticism traits will make significantly more professionally skeptical judgments and decisions, regardless of their cultural dimensions.

This section explains the measures used to investigate these questions, including the dependent variables and independent variables. In addition, this section discusses the coding of the dependent variable answers and details the data analysis plan.

3.6 Measurement of the Dependent Variables

This study focuses on the professional skepticism judgments and decisions of auditors. In the survey instrument, the survey participant is asked to make judgments as to the reasons for a significant gross margin change, which is more favorable than expected. The participant is asked to judge the explanation provided by the company's management representative, the CFO. In

making the assessment, the participant is asked to assign a percentage weight indicating the probability that the CFO's explanation is the reason for the change in gross margin. A lower percentage of agreement would highlight higher professional skepticism. If the participant assigns a percentage weight less than 100% to the client's explanation, the participant is asked to provide alternative explanations for the unexplained change in the margin. For each alternative explanation, the participant is also asked to assign a percentage indicating the likelihood that the alternative explanation explains the unexpected deviation. In auditing, exercising professional skepticism is evident when the auditor provides alternative explanations for unexpected deviations from what is expected. In this case, the background information indicates that the control system is weak, which calls into question the trustworthiness of the client's assertions. A more skeptical auditor would be less accepting of the CFO's explanations. In generating other plausible explanations as to why the gross margin increased, the auditor can provide both non-error-based explanations (i.e. price increases) and error-based explanations that could be unintentional (the costs of goods being understated because the cost recorded was at a predetermined budgeted cost instead of a higher actual cost) or intentional (the management recording fictitious sales). These variables are captured below as Items i to iv. Item v highlights the respondent's expectations concerning whether to perform additional testing. A more skeptical auditor would not accept the management's explanation and would identify that, considering the increase, he or she would need to do more work to investigate the favorable change in the gross margin. This would lead a skeptical auditor to decide to increase the audit's time budget for the additional work expected. The final measure of auditors' professional skepticism is the auditor's judgment as to the likelihood of fraud. Since the background information in the case highlights that the auditing environment indicates weak internal controls and the company has an aggressive management style, which are red flags that fraud may occur, the survey participant should be

concerned that there is a likelihood of fraud. The higher the weight assigned to this variable, the more professional skepticism is demonstrated.

In summary, the following six independent variables measure the respondent's skeptical judgments and decisions:

- i. Acceptance of the management's explanations,
- ii. The number of alternative explanations (error-based and non-error-based) generated by the auditor,
- iii. The number of error-based explanations (intentional and non-intentional) generated by the auditor,
- iv. The weight of error-based explanations,
- v. Increasing the amount of testing (number of budget hours) above the 100-hour budget established from the previous year's audit,
- vi. The likelihood of fraud.

3.7 Measurement of the Independent Variables

The independent or predictor variables in this study include two cultures (Canadian and Brazilian) and two trait scales (RIT and HPSS), along with other demographic variables such as age, gender and audit experience.

Culture, as discussed in Section 3.3 outlining the participant selection criteria, was measured via Hofstede's (2001) cultural dimensions. In particular, as can be seen in Table 2.1, the Canadian cultural dimension scores for power distance, uncertainty avoidance and individualism–collectivism (30, 48 and 80) are markedly different from Brazil's cultural

dimension scores (65, 76 and 38, respectively). These variables are used to develop the hypothesis concerning how these cultural inclinations may impact the professionally skeptical judgments and decisions of auditors. These scores are used to distinguish the Canadian auditors from the Brazilian auditors.

Skepticism as a trait is measured via two trait inventories: the RIT (Rotter, 1967) and the HPSS (Hurttt, 2010). The characteristics of these measures such as their reliability and validity, and the structure of the measures are provided below.

The RIT is a Likert-type scale containing 25 trust items. The five-point scale ranges from “strongly agree” to “strongly disagree”, with the midpoint being “neutral”. The scores for the scale range from 25 (lowest) to 125 (highest), with the neutral midpoint being 75. The scale was developed in the early 1960s on groups of undergraduate students in the US. The reliability for the internal consistency of the split-half reliability of the RIT scale was 0.76, with 0.77 for males ($n=248$) and 0.75 for females ($n=299$) (Robinson et al., 1991). The test–retest reliability, with an average time interval of 7 months, was 0.56 ($p<0.01$, $n=24$). Across a 3-month interval, the test–retest figure was 0.68 ($n=42$). In a study of auditors, less trusting auditors exercise more professional skepticism (Quadackers, 2009), which is measured as the opposite of trust. High scores on this scale represent low skepticism as a trait, whereas low scores indicate high skepticism. Since the scale was developed and validated on US students, from a cultural perspective, the scale is applicable to studying Canadian auditors, whose cultural dimensions are very similar to those of US auditors (Hofstede, 2001). The applicability of this inventory for measuring Brazilian auditors’ skepticism is questionable; however, since this is an exploratory study, it was used for this group as an opportunity to determine the exportability of such inventories to other cultures.

The HPSS is a six-point scale containing 30 items. The scale was designed to measure an individual's professional skepticism level. The six-point scale ranges from "strongly agree" to "strongly disagree". The scores for the scale range from 30 (lowest) to 180 (highest), with the neutral midpoint being 90. The scale was developed for a group of auditors in the US and has a Cronbach's α reliability of 0.86 ($n=200$) (Hurtt, Eining & Plumlee, 2007, Hurtt, 2010). High scores indicate high professional skepticism and low scores represent low professional skepticism. Since the scale was developed and validated with US auditors, from a cultural perspective, the scale is relevant to studying Canadian auditors, as indicated in the description of the RIT (Hofstede, 2001). Again, the applicability of this inventory for measuring Brazilian auditor skepticism has not been validated. However, the scale lends itself to translation, as it was translated into Dutch for another study involving auditors (Quadackers, 2009) with a Cronbach's α of 0.82 ($n=181$). The cultural dimensions of the US, the Netherlands and Canada are similar to each other; however, they are dissimilar to those of Brazil (Hofstede, 2001). Since this is an exploratory study, the HPSS scale is used for this group as an opportunity to determine its exportability to other cultures.

3.8 Coding

Several of the independent variables, namely the number of alternative explanations, the number of total error-based explanations and the total weight of error-based explanations are derived from the respondents' written explanations as to possible reasons for the gross margin's deviation from what was expected. Each respondent's answers were evaluated to determine whether they were plausible explanations. The Brazilian Portuguese answers were back-translated into English via the procedures for translation described earlier. The English versions of all answers were then coded via the coding method outlined by Quadackers (2009), where the

answers were evaluated as to the plausibility of such explanations and then classified into the following categories: non-error-based explanations, error-based explanations (both intentional and unintentional) and others. Two senior-level certified public accountants performed the classification independently, with any minimal differences reconciled by the coders.

3.9 Data Analysis

To investigate the primary research question as to whether there are differences between Canada and Brazil with respect to the skeptical judgments and decisions of auditors, descriptive statistics were prepared for the independent variables. The data are evaluated via non-parametric inferential tests (the Mann–Whitney U-test) to determine whether there are differences in the distribution of the responses by Canadian and Brazilian auditors.

The second research question looks at the auditor’s skepticism as a trait. Specifically, the question investigates whether auditors from different cultures exhibit different levels of skepticism and whether skepticism as a trait impacts auditors’ judgments and decisions. To explore this question, the data for each group was evaluated via Pearson correlation for continuous and binary categorical dependent variables, Spearman correlation for ordinal dependent variables and the z -test to compare correlation coefficients between Canada and Brazil. Further analysis to determine whether there was a difference in the judgments and decisions of trusting versus untrusting auditors and skeptical versus non-skeptical auditors in Canada and Brazil was carried out separately for Canada and Brazil. For binary categorical independent variables, the Chi-square test of independence was used. Mann–Whitney U-tests (non-parametric) were used for ordinal independent variables and the independent sample test was used for continuous independent variables.

3.10 Study Procedures

This section outlines the steps taken to contact the research participants and obtain their cooperation and administer the study instrument.

Initial contact was made with the Canadian national office of the Big Four accounting firms. The Canadian national office personnel then coordinated discussions through the international office officials with their Brazilian national office counterparts. The confidentiality of the Big Four firm's name and the employees was guaranteed. Both the Canadian and Brazilian offices granted approval for the study and designated an individual in each national office as the primary contact person responsible for administering the survey.

The study was hosted on the Qualtrics web-based research platform and each participant accessed the questionnaire on the internet via his or her individual laptop computer. In both Canada and Brazil, the firm's contact person sent an e-mail to each potential participant identified. This e-mail contained a copy of the Letter of Consent (Exhibit 3.2). The letter detailed the purpose of the study and highlighted that participation was voluntary and that all answers were confidential. The letter also indicated that the study was approved by the Laurentian University ethics committee; the ethics approval letter is given in Exhibit 3.3. The Letter of Consent (Exhibit 2) contained the URL that the participant could click on to access the survey hosted by Qualtrics. Consent was recognized once the person accessed the website. The procedures for delivery of the study to the participants involved different approaches in Canada and Brazil.

In Canada, the study was administered by the firm during staff training sessions involving staff and senior accountants, where 1 hour was set aside, and the participants were e-mailed the

Letter of Consent by the firm's coordinator at the beginning of the designated hour. In Canada, total of 164 auditors participated in the training sessions, 149 of whom started the survey; 91 participants completed the questionnaire fully for a response rate of 61.1%. Only completed responses were used in this study ($n=91$).

In Brazil, delivering the study during training sessions could not be accommodated and an alternative process was adopted utilizing a WebEx meeting. The firm identified potential participants for the study. They were initially contacted by e-mail by the firm's coordinator a week before the WebEx meeting date to determine if they could set aside an hour of time during their workday in order to participate in the meeting. Those who indicated to the coordinator that they could participate were then e-mailed the Letter of Consent at the beginning of the WebEx session. A total of 62 auditors indicated that they could participate in the study during the online meeting. Of that group of auditors, 55 attended and 21 completed the study for a response rate of 38.2%. As with the Canadian study, only completed responses were used in this study ($n=21$).

3.11 Summary

This chapter outlined the research design, including the methods and procedures for collecting and analyzing the data to answer the research questions and test the hypotheses. This chapter highlighted the criteria used in selecting the study participants and described the study instrument used. This chapter also detailed the translation procedures used in this cross-cultural study and outlined the process involved in conducting the study in Canada and Brazil.

The next chapter describes the results, including the SPSS statistical analysis that was performed to help answer the research questions posed and to highlight the results of the two hypothesis tested, specifically:

Hypothesis 1: The skeptical judgments and decisions of auditors in Canada will not be significantly different from those in Brazil.

Hypothesis 2: Auditors that exhibit low trust and high skepticism traits will make significantly more professionally skeptical judgments and decisions, regardless of their cultural dimensions.

Chapter 4: RESEARCH FINDINGS

4.0 Abstract

This chapter presents the results of the research. In this chapter, a description of the data and demographic information about the participants are outlined. In addition, the analysis performed to address the research questions and test the hypotheses is described, as well as the conclusions made with respect to this analysis.

4.1 Introduction

This chapter discusses the results of the research. The first section of this chapter describes the data and the demographic characteristics of the respondents to the survey. The next section presents the results of the analysis performed to investigate the research questions and test the hypotheses. This section also presents the conclusions drawn from this analysis.

4.2 Data Description

In Canada, 149 auditors took part in this study. Of that group, only 91 (61.1%) completed the study. Of those who did not complete the survey, 50 auditors did not answer any questions and the remaining eight completed between 14% and 78% of the questions. In Brazil, 55 auditors took part in the study. A total of 21 (38.2%) auditors completed the survey; 29 auditors (52.7%) left the survey without answering any questions. The remaining five auditors completed between 17% and 44% of the survey. The data from the 91 Canadian auditors and the 21 Brazilian auditors were used in the analysis.

4.3 Participants' Demographics

Table 4.1 below presents the demographic characteristics of the Canadian and Brazilian respondents. In addition, this table presents the results of statistical tests comparing these two groups.

The participants in this study are entry-level auditors. As shown in Table 4.1, the Canadian and Brazilian samples are not significantly different with respect to gender and education; however, the Canadian auditors are younger than those in the Brazilian sample. In addition to this, there were more female respondents in the Canadian sample than in the Brazilian sample. Both groups of auditors in the samples had similar educational backgrounds, with the

majority of auditors having a BSc, BBA or BComm. in Accounting. In addition, the Brazilian sample had a significantly higher percentage of individuals with a BA, BBA or BComm. other than Accounting. Most of the Canadian sample indicated that their first language was English, with the remainder indicating that their first language was French or one of a range of Asian or European languages. In Brazil, all respondents indicated that Portuguese as their first language.

Table 4.1. Demographic Characteristics of the Canadian and Brazilian Samples*

Characteristic	Canadian sample		Brazilian sample		Significance test
	<i>n</i>	statistic	<i>n</i>	statistic	
Average age (SD)	84	24.64 (2.60)	20	26.75 (1.41)	$t(102) = -3.50, p = 0.001$
Female, %	85	55.3%	20	33.3%	$\chi^2(1) = 2.67, p = 0.102$
Level of education:	91		21		
BA other fields		11.0%		4.8%	$\chi^2(1) = 0.75, p = 0.387$
BSci/BBA/BComm Accounting		70.3%		76.2%	$\chi^2(1) = 0.29, p = 0.592$
BSci/BBA/BComm Other		4.4%		28.6%	$\chi^2(1) = 12.26, p < 0.001$
Masters Accounting		14.3%		0.0%	
Masters Other		4.4%		0.0%	
Other		9.9%		4.8%	$\chi^2(1) = 0.55, p = 0.46$
First language:	83		20		
English or Brazilian		68.1%		100.0%	
French		3.3%			
Other		19.8%			

*Although the analysis was performed on the completed surveys of 91 Canadian auditors and 21 Brazilian auditors, some of the participants did not answer all of the questions.

4.4 Results

This section presents the findings associated with the research questions explored and the hypotheses tested. The first part of this section describes the analysis and the findings that relate to the first research question and Hypothesis 1. The second part of this section describes the analysis and the findings that relate to the second research question and Hypothesis 2.

4.4.1 Cultural differences in professional skepticism

Research Question 1: Do differences in culture affect the professional skepticism of auditors with respect to their judgments and decisions?

Hypothesis 1: The skeptical judgments and decisions of auditors in Canada will not be significantly different from those in Brazil.

To investigate whether the skeptical judgments and decisions of auditors in Canada are different from those of Brazilian auditors, the descriptive statistics of such decisions for each group are provided in Table 4.2. As previously outlined in Chapter 3, the measures of auditors' skeptical judgments and decisions include six dependent variables. The first variable is the percentage of agreement with the client's explanation for an unexpected positive deviation in the client's company's gross margin. A more skeptical judgment assigns a lower percentage, indicating less agreement with a client's assertion as to why the deviation occurred. The second variable used to measure skeptical judgments and decisions is the ability to generate alternative explanations. The third variable is the number of alternative error-based explanations and the fourth variable is the weight (as a percentage) of the number of the error-based explanations relative to all of the alternative explanations; these are also measures for skeptical judgments and decisions. The fifth and sixth variables measuring skeptical judgments and decisions are the auditor's assessment with respect to the hours budgeted to perform the audit and the auditor's assignment of a percentage regarding the risk of fraud with, respectively, where increased ours and higher percentages are representative of more skeptical judgments and decisions.

Table 4.2 provides the mean and standard deviation (SD) for each of these six dependent variables that measure the auditors' judgments and decisions. As can be seen from the mean, there are minimal differences between Canadian (41%) and Brazilian (44%) auditors with respect to the dependent variable assessing their agreement with the client's reason for the unexpected favorable change in the gross margin. On average, both Canadian and Brazilian auditors were not inclined to agree with the client's assertions. In addition, both the Canadian and Brazilian auditors, on average, indicated there was a need to increase the number of budgeted hours, with

the Canadians recommending 129 hours compared with Brazilian auditors at 115 hours.

With respect to the auditors generating alternative explanations, Brazilian and Canadian auditors generated similar numbers. Brazilians, on average, generated 1.53 alternative explanations and Canadians generated 1.69 alternative explanations. For the auditors' suggestions of error-based explanations, there was similarity in the number suggested by Canadian auditors and by Brazilian auditors, as well as similarity between Canadian auditors and Brazilian auditors with respect to the weight assigned to these error-based explanations. On average, Canadian auditors suggested 0.79 error-based explanations and Brazilian auditors suggested 0.43. The Canadian auditors assigned a weight of 21% to the error-based explanations and Brazilian auditors assigned a weight of 14%. Both Brazilian auditors and Canadian auditors assigned a similar percentage to the likelihood of fraud at 54% and 48% respectively.

Table 4.2
Comparison of Skeptical Judgments/Decisions in Canadian and Brazilian Samples

Variable	Country	N	Mean	St. Dev	Min	Median	Max	Mann-Whitney U	Z	p-value
Weight of error explanations (0-100%)	Canada	91	21%	0.28	0	0	100%	591	-1.6	0.116
	Brazil	21	14%	0.286	0	0	95%			
Weight of likelihood that Management's explanation is right (0-100%)	Canada	91	41%	0.356	0	30%	100%	684	-0.6	0.521
	Brazil	21	44%	0.322	10	50%	100%			
Number of alternative explanations (error and non-error)	Canada	91	1.527	1.552	0	1	8	673	-0.8	0.553
	Brazil	21	1.693	1.501	0	1	3			
Number of error explanations (intentional and non-intentional)	Canada	91	0.791	1.091	0	0	5	562	-1.9	0.063
	Brazil	21	0.429	1.009	0	0	1			
Number of budget hours (prior year 100 hours)	Canada	91	129	38.32	50	120	400	434.5	-1.6	0.115
	Brazil	21	115	38.47	75	115	180			
Likelihood of fraud (0 - 100%)	Canada	91	48	25.99	4	50	100	569.5	-0.5	0.634
	Brazil	21	54	24.34	10	50	100			

To determine whether the answers between the two groups were significantly different, additional statistical analysis was performed. Because the individual responses were skewed, Table 4.2 reports the median, minimum and maximum for each variable for Canadian and Brazilian auditors. This table shows that the distribution of most variables for Canada and Brazil was similar; however, there are some differences. The Canadian respondents showed a larger

range in the number of alternative explanations (0–8) than the Brazilian respondents (0–3). In addition, the Canadian sample had a greater range for the number of error-based explanations (0–5) than the Brazilian sample (0–1).

Non-parametric inferential tests (the Mann–Whitney U-test) were conducted for each variable to examine whether the comparison of the distributions observed in the sample data can be generalized to the population of Canadian and Brazilian auditors. These statistical tests were used to accommodate the skewed nature of the variables. These tests confirmed that there were no significant differences in the distribution of responses between the Canadian and Brazilian auditors to all of the questions asked. It appears, therefore, that there is support for hypothesis 1 that the skeptical judgments and decisions of Canadian auditors are not significantly different from those of Brazilian auditors.

4.4.2 Skepticism as a trait

This section looks at the data analysis performed to answer the second research question and test the second hypothesis:

Research Question 2: Do the skeptical traits of auditors from different cultures impact their skeptical judgment and actions?

Hypothesis 2: Auditors that exhibit low trust and high skepticism traits will make significantly more professionally skeptical judgments and decisions, regardless of their cultural dimensions.

To investigate skepticism as a trait, two measures were used. The two measures of trait skepticism include the reverse-scored RIT and the HPSS. To investigate the second research question, an analysis was performed to assess whether there was a difference in the professional skepticism traits of the auditors in Canada compared with the auditors in Brazil.

In order to determine whether reliable scores can be computed for the RIT and HPSS, Cronbach's α tests for internal consistency were performed. Since both scales had high reliability

of the scores, .074 for the RIT and 0.88 for the HPSS, they were compared and used in further analyses.

Table 4.3 provides the average scores for both scales for each group. As can be seen from the table, the auditors in Canada and Brazil have similar trust scores.

The RIT scale is based on 25 trust items and uses a five-point Likert scale as described in Section 3.7. Because the RIT scale was reverse-scored in this study, higher scores indicate lower trust (or higher skepticism) and lower scores indicate higher trust. In the two samples, the trust scores ranged from 46 to 79 for Canadian auditors ($n=89$) and from 50 to 79 for Brazilian auditors ($n=21$). As shown in Table 4.3, the average score for Canadian auditors is 65.07 and the average score for Brazilian auditors is 63.95, which is indicative of individuals who are more trusting than untrusting in both cases. An independent samples t -test was performed, which indicated that the average trust scores of the Canadian and Brazilian sample were not significantly different.

The HPSS professional skepticism scale uses a six-point scale as described in Section 3.7. For Canadian auditors, the range was 66 to 160 ($n=89$). For Brazilian auditors, the range was from 70 to 164 ($n=20$). Brazilian auditors had a higher mean score (138.95) than Canadian auditors (117.2), indicating that Brazilian auditors appear to be more skeptical than Canadian auditors, considering skepticism as a trait. To determine whether this difference was significant, an independent t -test was performed. As can be seen from Table 4.3, the average score for auditors in Canada is significantly lower than the average score for auditors in Brazil, indicating that the trait skepticism of Canadian auditors as a trait is significantly lower than that of Brazilian auditors.

Table 4.3 *Comparison of Professional Skepticism and Trust in Canada and Brazil*

	Canada		Brazil		<i>t</i> -test
	Mean	SD	Mean	SD	
RIT	65.07	17.89	63.95	9.38	0.27
HPSS	117.29	32.59	138.95	19.67	-2.92**

** $p < 0.01$

The second part of the research analysis investigates whether skepticism as a trait of Canadian and Brazilian auditors relates to the auditors' judgments and decisions. In order to investigate whether there is a relationship between Canadian and Brazilian auditors' skeptical traits and their skeptical judgments and decisions, Spearman correlations were computed for each of the skepticism trait measures (RIT and HPSS) and the six dependent variables mentioned above.

The first analysis was performed with the RIT scale to answer the question, "Do more skeptical auditors in Canada and Brazil make more skeptical judgments and decisions?" Table 4.4 provides the Spearman correlations between the RIT scores of Canadian and Brazilian auditors and the auditors' judgments and decisions. None of the six judgment and decision variables for the Brazilian sample showed evidence of a significant correlation to the RIT scores. In Canada, five of the six variables did not correlate with the RIT score. There was a moderately strong correlation ($r = -0.43$, $p < 0.01$) observed between the trust score and the percentage assigned by respondents as to the likelihood of fraud. The direction of the correlation, however, was in the opposite direction of what was expected, in that auditors with lower skepticism scores (or more trusting auditors) assigned a higher percentage to the likelihood of fraud.

Table 4.4 *Correlations between Trust Scores (Inverse RIT) and Skeptical Judgments and Decisions in the Canadian and Brazilian Samples*

Variable	Canadian	Brazilian
	<i>r</i>	
Weight of error-based explanations (0–100%)	0.03	-0.20
Number of error-based explanation(s) provided by the respondent	0.05	-0.13
Number of alternative explanations (error-based and non-error-based) provided by the respondent	0.03	0.22
Weight of likelihood that the management’s explanation is right (0–100%)	0.10	0.24
Number of budgeted hours (prior year: 100 hours)	-0.07	-0.32
Likelihood of fraud (0–100%)	-0.43**	-0.02

Note. * $p < 0.10$; ** $p < 0.01$; *** $p < 0.001$

The second analysis was performed for the HPSS trait scale to answer the question, “Do more skeptical auditors in Canada and Brazil make more skeptical judgments and decisions?” Spearman correlations between the HPSS scores of Canadian and Brazilian auditors and the auditors judgment and decisions were computed. The results of this analysis are presented in Table 4.5.

Table 4.5 *Correlations between Professional Skepticism Scores (HPSS) and Skeptical Judgments and Decisions in the Canadian and Brazilian Samples*

Variable	Canadian	Brazilian
	<i>r</i>	
Weight of error-based explanations (0–100%)	0.26*	0.12
Number of error-based explanation(s) provided by the respondent	0.26*	0.08
Number of alternative explanations (error-based and non-error-based) provided by respondent	0.34**	0.17
Weight of likelihood that the management’s explanation is right (0–100%)	0.04	0.14
Number of budgeted hours (prior year: 100 hours)	0.06	0.19
Likelihood of fraud (0–100%)	-0.06	0.31

Note. * $p < 0.10$; ** $p < 0.01$; *** $p < 0.001$

As can be seen from Table 4.5, three variables that related to the number and type of explanations and the number and weight of error-based explanations determined by the auditors in Task 1 were moderately positively correlated in the Canadian sample. This indicates that there was a positive relationship between skepticism as a trait and the auditors’ judgments and decisions with respect to generating alternative explanations for the unexpected increase in the client’s reported gross margin. These correlations were not found in the Brazilian sample, where the correlations were small and not significant. For both the Canadian and Brazilian auditors, the correlations for the other three dependent variables, namely the percentage of agreement with the client, the number of budgeted hours and the likelihood of fraud, were small and not significant.

In order to explore whether there is a difference in the judgments and decisions of auditors with high levels of skepticism as a trait versus auditors with low skepticism, further data analysis was performed on each professional skepticism scale (RIT and HPSS). For this part of

the analysis, the top and bottom 30% of respondents, based on their scores for the RIT and for HPSS, were analyzed in order to measure auditors with high levels of skepticism as a trait against auditors with low levels of trait skepticism. Analysis was then performed to determine whether significant differences exist in skeptical judgments and decisions between high and low trait skepticism auditors for each of the measures of trait skepticism, specifically, the RIT scale and HPSS.

4.4.3 Is there a difference in the judgments and decisions of trusting vs. untrusting auditors in Canada and Brazil?

For the RIT scale, to answer the question as to whether there is a difference in the judgments and decisions of trusting (low skepticism) versus untrusting (high skepticism) auditors in Canada and Brazil, the top and bottom 30% of respondents were identified in the Canadian and Brazilian samples and only respondents who completed the surveys related to the RIT scale were included. The Canadian sample included 27 respondents in the high trust (low skepticism) group and 26 respondents in the low trust (high skepticism) group. The Brazilian sample included seven respondents in the high trust group and six respondents in the low trust group. To examine the relationship between trust group inclusion and skeptical judgments and decisions, Chi-square tests of independence were performed. The results of these tests indicate that there is a weak and insignificant relationship in both Canadian ($\chi^2(1) = 1.67, p = 0.196$, Cramer's $V = 0.18$) and Brazilian ($\chi^2(1) = 0.07, p = 0.797$, Cramer's $V = 0.07$) samples.

Differences in the auditors' skeptical judgments and decisions for the high trust group and the low trust group for each culture are detailed in Table 4.6 are discussed below.

For the dependent variable assessing the auditor's decision with respect to the budgeted number of auditing hours, the results for the Canadian sample indicate that the average number of hours in the high trust group was 124.50 (SD = 17.76). The average for the low trust group was

135.50 (SD = 60.10), $t(43) = -0.79$, $p = 0.434$. The results for the Canadian group were as expected, with less trusting auditors assigning more hours; however, the difference between the two Canadian groups was not significant. In the Brazilian sample, the average number of budgeted hours was 132.50 (SD = 34.03) in the high trust group and 114.00 (SD = 28.81) in the low trust group ($t(7) = 0.88$, $p = 0.405$). This result for the Brazilian sample was not as expected, since it appears that more trusting auditors budgeted for more auditing hours (originally set at 100) than the less trusting auditors. The difference between the two Brazilian groups, however, was not significant.

For the dependent variable dealing with the auditors' belief in the likelihood of fraud (as a percentage), there was a significant difference in the Canadian sample between the high and low trust groups. For the high trust group, the average was 61.10 (SD = 26.18). For the low trust group, the average was 34.21 (SD = 21.62, $t(37) = 3.49$, $p = 0.001$). The result was not in the expected direction, in that the expectation was that less trusting or more skeptical auditors would assess a higher percentage for the likelihood of fraud. The difference between the high and low trust groups in the Brazilian sample was not significant. The average belief in the likelihood of fraud in the high trust group was 51.43 (SD = 28.68) and it was 47.00 (SD = 13.04) in the low trust group ($t(10) = 0.32$, $p = 0.756$).

Table 4.6 below provides the results of the comparison between high trust and low trust auditors with respect to the remaining judgment and decision variables regarding the auditors' assessment of alternative explanations to the justification provided by the client for the deviation.

Table 4.6. *Comparison of the Explanations in the Low and High Trust Groups in the Canadian and Brazilian Samples.*

		High Trust		Low Trust		<i>t</i> -test
		Mean	SD	Mean	SD	
Canadian	Weight of error-based explanations (0–100%)	20.94%	33.15%	24.07%	26.06%	-0.40
	Number of error-based explanations provided by the respondent	0.72	1.33	0.85	0.91	-0.44
	Number of alternative explanations (error-based and non-error-based) provided by the respondent	1.13	1.48	1.44	1.60	-0.80
	Weight of likelihood that the management’s explanation is right (0–100%)	36.76	39.79	46.17	37.39	-0.99
	Number of budgeted hours	124.50	17.76	135.50	60.10	-0.79
	Likelihood of fraud (0–100%)	61.10	26.18	34.21	21.62	3.49**
Brazilian	Weight of error-based explanations (0–100%)	0.15	0.35	0.00	0.00	1.03
	Number of error-based explanations provided by the respondent	0.17	0.39	0.00	0.00	1.03
	Number of alternative explanations (error-based and non-error-based) provided by the respondent	0.50	0.67	1.17	0.98	-1.70
	Weight of likelihood that the management’s explanation is right (0–100%)	30.00	34.16	56.67	40.41	-1.08
	Number of budgeted hours	132.50	34.03	114.00	28.81	0.88
	Likelihood of fraud (0–100%)	51.43	28.68	47.00	13.04	0.32

Note. * $p < 0.1$; ** $p < 0.01$; *** $p < 0.001$

As Table 4.6 shows, there were no significant differences in the explanation variables for the high trust group and the low trust group of the Canadian and Brazilian samples.

4.4.4 Is there a difference in the judgments and decisions of highly skeptical versus less skeptical auditors in Canada and Brazil?

In answering this question, the HPSS was used as the measure of skepticism. Similar to the analysis performed for the RIT, the top and bottom 30% of respondents were identified in the Canadian and Brazilian samples and only respondents who completed the surveys related to the HPSS scale were included. The Canadian sample contained 23 respondents in the high professional skepticism group and 23 respondents in the low professional skepticism group. The Brazilian sample contained four respondents in the high professional skepticism group and four respondents in the low professional skepticism group. The effects of inclusion in these groups on the six dependent variable assessing the auditors' judgments and decisions are provided in Table 4.7 and described below.

For the variable asking the auditor to assign the number of auditing hours in Task 2, there were no significant differences noted between the high professional skepticism and low professional skepticism groups. In the Canadian sample, the average number of hours for the low professional skepticism group was 135.22 (SD = 60.12); in the high professional skepticism group, it was 131.30 (SD = 60.10) ($t(44)=0.28, p=0.738$). In the Brazilian sample, the average number of budgeted hours was 100.00 (SD = 16.33) in the low professional skepticism group and 125.00 (SD = 43.59) in the high professional skepticism group ($t(3.8)=-1.07, p=0.346$).

When asked to assign a percentage to the likelihood of fraud, there were no significant differences between the high professional skepticism and low professional skepticism groups for either the Canadian or Brazilian samples. In the Canadian sample, the average percentage assigned by the low professional skepticism group was 57.22 (SD=23.09) and the percentage assigned by the high professional skepticism group was 50.6 (SD = 30.24)($t(40) = 0.77, p=0.444$). In the Brazilian sample, the average percentage in the low professional skepticism group was

47.00 (SD=23.87); in the high professional skepticism group, it was 66.00 (SD = 27.02) ($t(8) = -1.18, p=0.273$).

Table 4.7 provides the results of comparing the high professional skepticism and low professional skepticism auditors with respect to the judgment and decision variables that looked at the respondent's assessment of alternative explanations for the gross margin's deviation from the expected.

Table 4.7 Comparison of the Explanations in the Low and High Professional Skepticism Groups in the Canadian and Brazilian Samples.

		Low Skepticism		High Skepticism		<i>t</i> -test
		Mean	SD	Mean	SD	
Canadian	Weight of error-based explanations (0–100%)	10.44%	20.83%	30.00%	32.66%	-2.81**
	Number of error-based explanations provided by the respondent	0.50	1.05	1.00	0.91	-1.91
	Number of alternative explanations (error-based and non-error-based) provided by the respondent	0.82	1.34	2.36	1.55	-4.08***
	Weight of likelihood that the management's explanation is right (0–100%)	34.13	39.04	33.46	26.71	0.08
	Number of budgeted hours	135.22	60.12	131.30	60.10	0.28
	Likelihood of fraud (0–100%)	57.22	23.09	50.60	30.24	0.77
Brazilian	Weight of error-based explanations (0–100%)	8.27%	25.51%	19.00%	42.49%	-0.64
	Number of error-based explanations provided by the respondent	0.18	0.40	0.20	0.45	-0.08
	Number of alternative explanations (error-based and non-error-based) provided by the respondent	0.73	1.10	1.40	0.55	-1.28
	Weight of likelihood that the management's explanation is right (0–100%)	41.60	47.01	35.00	23.80	0.25
	Number of budgeted hours	100.00	16.33	125.00	43.59	-1.07
	Likelihood of fraud (0–100%)	47.00	23.87	66.00	27.02	-1.18

Note. * $p < 0.1$; ** $p < 0.01$; *** $p < 0.001$

For the Canadian sample, there were moderately significant differences between the low professional skepticism and high professional skepticism groups with respect to the percentage weight assigned to all error-based explanations; the average in the low professional skepticism group was 10.44% (SD = 20.83%) and in the high professional skepticism group, the average was 30.00% (SD = 32.66%). There was a significant difference between the two groups for the number of error and non-error-based explanations (low professional skepticism: 0.82, SD = 1.34; high professional skepticism: 2.36, SD = 1.55). It is evident that in the Canadian sample, the professional skepticism of the auditor is related to the auditor's ability to generate alternative explanations. In the Brazilian sample, there were no significant differences between the low professional skepticism and high professional skepticism groups with respect to generating alternative explanations.

In summary, there does not appear to be support for Hypothesis 2. From the data analysis, it is not conclusive that auditors who exhibit more skeptical traits will make more skeptical judgments and decisions, regardless of their cultural dimensions. When skepticism as a trait is measured via RIT scale, there were no significant differences in the skeptical judgments and decisions between the high trust and low trust groups in either the Canadian or Brazilian samples. Measuring professional skepticism traits using HPSS saw some significant differences between the high trust and low trust groups in the Canadian sample. This illustrated that more skeptical auditors made more skeptical judgments and decisions; however, there were no such differences noted in the Brazilian sample. As a result of this analysis, there is no support for the second hypothesis that auditors who exhibit more skeptical traits will make more skeptical judgments and decisions, regardless of their cultural dimensions.

The finding results are discussed and synthesized in the next chapter. Chapter 5 summarizes the possible reasons for the results found. In particular, the chapter provides counter arguments as to

why the findings were not consistent with the expectations of cross-cultural differences in auditors' professional skepticism. The chapter also provides a discussion and analysis relating to the auditors' skepticism as a trait and a discussion of the results found in the study.

Chapter 5: DISCUSSION OF THE FINDINGS

5.0 Abstract

This chapter presents a discussion of the major study findings and the implications of this study.

5.1 Introduction

This study is a cross-cultural investigation examining the professional skepticism of entry-level auditors. The remainder of this chapter provides a summary of the major findings and the implications of this study and consists of two sections: the purpose of the study and a discussion of the findings.

5.2 The Purpose of the Study

Globalization has transformed the financial reporting environment, with more and more countries over the last few years adopting the IFRS for public companies. The use of a common language in financial reporting is expected to make it easier for stakeholders to compare companies, thus increasing global investors' confidence.

The IFRS prescribed by the IASB are principle-based standards as opposed to more rule-based standards, requiring the exercise of professional judgment by accountants in their interpretations and applications of the standards for the financial reports of their organizations. Concern has been raised as to whether the interpretation and application of these standards are uniform on a global basis (Hodgdon et al., 2009). The statutory audit is one mechanism that has been sought to ensure harmonization of such standards (Hodgdon et al., 2009).

The client's management is responsible for preparing the financial statements. It is the auditor's role to collect sufficient and appropriate audit evidence to determine whether the financial information reported is relevant and representatively truthful and compliant with the accounting standards. Many of the corporations that are audited are multinational publicly traded enterprises that operate globally in jurisdictions involving different national cultures, regulations and legal systems. In this more complex auditing environment, the auditor is increasingly more responsible for ensuring that the audits are of high quality. One area that has been highlighted as

critical in the execution of quality audits is the exercise of professional judgment and professional skepticism (Quadackers et al., 2014).

The importance of professional skepticism in auditing cannot be understated. It is a key concern of regulators in their inspections of audits (Glover & Prawitt, 2014). In Canada, the CPAB has consistently raised concerns about the lack of professional skepticism by audit firm staff in the annual inspections of audits performed by the CPAB (CPAB, 2017, 2016, 2015, 2014). In particular, their findings note that the quality of audit procedures would have been improved as a result of increased professional skepticism (CPAB, 2012).

This research looks at the role of the auditor in their audits of the financial statements prepared by the management, the audit's compliance with generally accepted accounting principles, such as the IFRS and the auditor's application of international auditing standards. Specifically, the study investigates the impact of auditor characteristics on their professionally skeptical judgments and decisions within the context of an increasingly multifaceted global environment.

One such factor that may impact professional skepticism of auditors is culture. Hurtt et al. (2013) suggest this is an area that needs empirical evidence. This study helps to fill a void in the literature by looking at the professional skepticism of auditors through a cross-cultural lens, drawing on auditors, specifically entry-level auditors in Canada and Brazil, from nations that have very different cultural dimensions.

In addition, this study is a cross-cultural analysis of skepticism as a trait. Researchers have found that auditors who have more skeptical dispositions appear to exercise more professional skepticism judgment and decisions, and that such dispositions may be an important

consideration for the recruitment and training of auditing personnel (Quadackers et al., 2014). This study extends these previous findings to determine whether this holds true in different cultures, which is the second purpose of this study.

This study's findings are discussed in the next section.

5.3 Discussion of the Findings

This section discusses the findings of the research questions investigated. The first part of this section examines the findings for the first research question, exploring whether differences in culture affect the professionally skeptical judgments and decisions of auditors. The second part of this section reviews the findings of the second research question, investigating whether skepticism as a trait of auditors correlates with the auditors' skeptical judgments and decisions, regardless of the auditors' cultural dimensions.

5.3.1 Professional skepticism and the auditors' culture

The first research question investigates the cross-cultural professionally skeptical judgments and decisions of auditors from two countries who, collectively, are very different in terms of cultural dimensions, specifically power distance and individualism–collectivism. Brazil's cultural profile is characterized as having high power distance and collectivism, whereas the Canadian cultural profile includes a low power distance and individualism dimensions.

In demonstrating professional skepticism, the auditor should have certain characteristics, such as a questioning mind, a search for knowledge, an understanding of what motivates people (interpersonal knowledge) and the autonomy to draw his or her own conclusions as to the reliability of information without influence from others (Hurt, 2010). In exercising professional skepticism, the auditor should be able to challenge the client's representations without yielding to pressure from the client (Hurt et al., 2013). Given the distinctively different cultural dimensions

of Brazil and Canada, the expectation was that the professionally skeptical professional skepticism judgments and decisions of Brazilian auditors would be different from those of Canadian auditors.

The audit situation used in this study involved the analytical procedures used by the auditors to assess an unexpected deviation in a financial statement's gross margin. The auditors were given the task of assessing whether the unexpected variation was the result of what the client's CFO claimed, namely a favorable change in the product mix. Analytical procedures require the use of professional judgment to form expectations about account balances (Hughes et al., 2009). Hofstede (2001) asserts that when there is a need for judgment, decision-makers may draw on their cultural norms to enable them to make such decisions. In the hypothetical scenario, the client provided a non-error-based explanation for the favorable change in the gross margin. In such circumstances, an auditor's judgments that are contrary to the client's assertion would result in potential conflict between the auditor and the client. In exercising professional skepticism, the auditor should be comfortable with questioning the client's assertions, regardless of the potential conflict (Hurt et al., 2013). In demonstrating professional skepticism judgments, the auditor would be less inclined to agree with the client's explanation and would be able to generate alternative explanations for the unexpected results (Quadackers et al., 2014). In addition, an auditor's professional skepticism could be demonstrated through decisions or actions, such as adjusting the number of hours budgeted for the audit (Nelson, 2009; Quadackers et al., 2014).

Contrary to the expectations outlined above, the findings of this study are that the professionally skeptical judgments and decisions of Canadian and Brazilian auditors were not significantly different. Six variables were used as measures of professionally skeptical judgments and decisions: the weight assigned by the auditor to the likelihood that the

management's explanation was right, the number of alternative explanations, the number of error-based explanations, the weight assigned by the auditor to the error-based explanations, the number of hours budgeted and the weight assigned by the auditor to the likelihood of fraud. The results for each of these six variables used for evaluating the auditors' ability to exercise professional skepticism are summarized below.

The first variable, the likelihood that the management's explanation is right, assesses the degree to which the auditor agreed with the client's explanation for the favorable increase in the gross margin. In comparing Canadian and Brazilian auditors, the expectation was that Brazilian auditors would be more accepting of the client's senior manager's (the CFO's) explanation, given the cultural dispositions of power distance and collectivism. The results indicate that the answers of the two groups of auditors were not statistically significant. In addition, the mean score for Canadian auditors was 41%; for Brazilian auditors, it was 44%. Both groups of auditors had similar levels of agreement with the client's explanation.

Another measure of professional skepticism is the auditor's ability to generate alternative explanations. Both groups generated similar numbers of alternative explanations, with Canadian auditors averaging 1.52 alternative explanations compared with a slightly higher mean for Brazilian auditors at 1.69. The difference between the two groups was not found to be statistically significant.

The third variable used to evaluate professional skepticism was the number of error-based explanations. Canadian auditors generated, on average, 0.79 error-based explanations compared with Brazilian auditors at 0.42 error-based explanations. In addition, for the fourth variable, the probability that the error-based explanations accounted for the unexpected change in the gross margin, Canadian auditors assigned a percentage weight of 21% to error explanation compared with Brazilian auditors at 14%. The means for these variables show that Canadian auditors and

Brazilian auditors generated similar numbers of error-based explanations and assigned similar weights to those error-based explanations. Generating more error-based explanations and assigning higher weights to such alternative explanations indicates higher levels of professional skepticism. The differences in the answers between the two groups were not statistically significant.

The fifth variable used to evaluate the professional skepticism of auditors was the auditor's assessment of the likelihood of fraud. The Brazilian auditors assigned, on average, a 54% likelihood and Canadian auditors assigned 48%. The findings indicate that the differences between the two groups are not statistically significant, indicating that Brazilian and Canadian auditors show similar levels of concern that fraud may exist.

The final skeptical decision variable was whether the auditor would expand the auditing plan, indicated by an increase in the number of budgeted hours. Adjusting the auditing plan indicates greater professional skepticism, where the auditor acknowledges the need to perform additional work to verify the client's assertions as to why there was an increase in the gross margin. On average, the Canadian auditors moved the budget from 100 hours up to 129 hours. The Brazilian also, on average, increased the budget. The Brazilian mean budget was 115 hours. Given the cultural values of low power distance and high individualism, the expectation was that Canadian auditors would not have difficulty questioning the client's assertion and following this up by expanding the auditing plan. The expectation for Brazilian auditors was that there would be less questioning of the client's assertion and therefore no need for expanding the budgeted hours. These results from the study highlight that both sets of auditors acknowledged the need to do additional auditing work. The differences between Canadian and Brazilian auditors were not significantly different.

Hurtt et al. (2013) acknowledged that there is limited research specifically investigating the interaction of culture and professional skepticism. There have, however, been several cross-cultural studies investigating auditors' judgment and decision-making; these studies have been itemized and reviewed by Nolder and Riley (2014). In their review, they highlighted that the majority of these studies found that culture influenced auditors' judgment and decisions. Of the studies reviewed by the authors, four were performed on accounting students as proxies for entry-level auditors and all four found that culture influenced the decisions and judgments of auditors. Of the other studies that involved auditors, all but two found that differences in culture resulted in differences in auditors' judgment and decision-making process. As previously highlighted, culture is more influential when a task requires more judgment (Hofstede, 2001).

The expectation of this study was that cultural values would influence the auditors' skeptical judgments and decisions. The findings indicate that these values did not. The question is why. Perhaps answers can be found in the nature of accounting standards and the role of accounting education in learning principle-based standards. In addition, another possible explanation for the lack of differences is the moderating effect of cultural change. These possible explanations for the results are discussed below.

The globalization of accounting standards has resulted in many countries adopting the IFRS principle-based accounting standards, with many moving away from rule-based accounting standards. This is the case for Canada and Brazil. Brazil adopted the IFRS in 2010 and Canada adopted the IFRS in 2011. Prior to adopting the IFRS, both countries had accounting standards that were modeled on those of the US (Carvalho & Salotti, 2013; Gaa, 2007). These US standards were rule-based standards. The conversion to the IFRS meant that accounting standards became principle-based. Research on auditing principle-based accounting standards has found that principle-based standards result in very different judgment processes by auditors compared with

rule-based accounting standards. This research indicates that principle-based standards are “likely to evoke systematic and thorough information processing, leading auditors to strive for a rich and accurate understanding of the issues under consideration” (Peytcheva et al., 2014, p. 67). These researchers found that by their very nature, principle-based standards influence auditors’ processes of accountability, leading to a desire to have a thorough understanding of the problem at hand, which “ultimately increase auditors’ demand for audit evidence” (Peytcheva et al., p. 51). Peytcheva et al. (2014) concluded that, unlike rule-based accounting standards, principle-based accounting standards are likely to stimulate systematic and thorough information processing by auditors, leading to a fuller and multifaceted understanding of the issues auditors examine. This conclusion raises the question as to whether the movement to principle-based standards may cause auditors to process information in a way that mitigates the influence of culture in making skeptical judgments and decisions. Perhaps the approach taken to educate accounting students on principle-based accounting standards contributes to this effect on auditors’ judgment processes.

Adopting principle-based standards in Canada and Brazil has resulted in changes to the education of accountants, which may be a contributing factor explaining why there were no significant differences in the judgments and decisions of Brazilian and Canadian entry-level auditors. Educators in both Brazil and Canada acknowledge the benefits of using case studies and problem-based learning approaches in teaching the IFRS principle-based accounting standards (Carvalho & Salotti, 2013; Hilton & Johnstone, 2013). In Brazil, accounting educators at one of Brazil’s largest universities, Universidade de São Paulo, noted that the movement to the IFRS was a “revolution” in the accounting education that shifted teaching accounting from a rule-based approach to one which integrated fundamental concepts. Educators adopted a new approach to teaching, using case studies to show real accounting problems viewed from different perspectives

to emphasize the decision-making process (Carvalho & Salotti, 2013). The focus of many Canadian accounting educators in teaching the IFRS was to enhance problem-solving skills, critical thinking skills and research skills (Hilton & Johnstone, 2013). In both Brazil and Canada, there have been concerted efforts by many academics to teach accounting by emphasizing critical thinking and decision-making skills. Hofstede (2001) acknowledges that humans are wired unconsciously with basic values that, with training, can be reprogrammed. Perhaps the entry-level auditors in Canada and particularly those in Brazil were reprogrammed through learning and developed a more critical thinking approach to decision-making in a principle-based accounting standards environment, which may have moderated the tendency to frame judgments and decisions through a cultural values lens. This might help to explain why there were no differences in the professional skepticism of auditors from these two countries.

Another possible reason for the results could be the shifting of cultural dimensions over generations. Hofstede's concept of culture maintains that cultural dimensions are very stable over time (Hofstede, 2001), although he acknowledges that change can occur in response to environmental factors such as economic development and/or technological advances. He argues, however, that value changes are slow unless the external influences are "violent". The gradual changes in values within a given culture, Hofstede (2001) contends, may be discernable in century increments. This view of cultural change is in contrast to the work of Inglehart (1971, 1990, 1997) as cited in Beugelsdijk and Welzel (2018), whose research identified massive generational shifts in cultural values tied to economic development. leading to a dynamic theory of cultural change (Inglehart & Welzel, 2005). Beugelsdijk and Welzel (2018) highlighted that Inglehart's research focused on the modernization theory, which holds that cultural norms, values and beliefs change in predictable directions as a result of continued economic development. Further refinement to this theory led to a "revised theory of modernization" (Inglehart & Welzel,

2005) that has since been further refined into an “evolutionary theory of emancipation” by Welzel (2013).

The foundation for the aforementioned theories is Maslow’s (1954) hierarchy of human needs. Beugelsdijk and Welzel (2018) explain that humans adjust their values in response to changing existential conditions along a continuum ranging from existential security to expressive freedom, which Welzel (2013) calls the “utility ladder of freedom.” Beugelsdijk and Welzel (2018) contend that if there is a lack of safety and freedom, humans will prioritize security, but if people feel safe, people prioritize freedom. The movement from safety to freedom is stimulated by socioeconomic transformations creating a shift in the perception of the nature of life from a foundation of danger or threat to a foundation of safety or opportunity (Beugelsdijk & Welzel, 2018). The theory of cultural change outlined by these researchers is that there is a universal principle in the functioning of the human mind where humans adjust their subjective values to the objective utilities of life (Beugelsdijk & Welzel, 2018). It is this “utility–value link” that is universally wired into all humankind, which is the conduit permitting evolution in adaptive values, which, as Beugelsdijk & Welzel (2018) state, evolves more intensely between generations. Beugelsdijk & Welzel (2018) note that several studies have shown evidence of these shifts in values, particularly shifts towards increasing individualism. The question is whether these shifts in values could help to explain why the decisions and judgments of Brazilian auditors were not significantly different from those of Canadian auditors.

Through their study assessing intergenerational cultural change, Beugelsdijk and Welzel (2018) confirmed an evolutionary generational shift from a survival orientation to an emancipative orientation, predicated, to a great degree, on socioeconomic development, where there is a continuum of subjective life orientations. One end of the continuum is characterized as a “preventative closure mentality in which people emphasize uniformity, discipline, hierarchy,

and authority” (p. 1472); at the other end, there is a “promotive openness” mentality, where people emphasize “diversity, creativity, liberty, and autonomy” (p. 1472). The authors assert that cultural dimensions are adapted to the presence of threat or opportunity, where, in the presence of threats, cultural orientations emphasize collectivism and duty, whereas, in the presence of opportunity, orientations shift toward individualism and joy. The research noted that cultures change and there is a shift in cultural orientations over generations from collectivism to individualism and from duty to joy. The question is whether this intergenerational cultural shift may help explain the lack of differences in the professionally skeptical judgments and decisions of auditors from Canada and Brazil, as found in this thesis.

This study looked specifically at entry-level auditors. The auditors in this study ranged between 22 and 27 years of age, and one could say that they represent a specific generational cohort. Considering the work of Beugelsdijk and Welzel (2018), perhaps the reason this study did not find significant differences in the professional skepticism of Brazilian and Canadian entry-level auditors is that the Brazilian auditors are representative of a generational shift that has caused a rewiring of cultural values. Beugelsdijk and Welzel (2018) highlighted that adaptive value shifts in culture happens more profoundly between generations. Their study reconciles the cultural dimensions of Hofstede (2001) with the dynamic theory of cultural change outlined by Inglehart (1971, 1990, 1991). Beugelsdijk & Welzel’s (2018) model of culture includes cultural dimensions inspired by Hofstede’s six dimensions but collapsed into three, specifically collectivism–individualism, duty–joy and distrust–trust. The collectivism–individualism dimension combines Hofstede’s power distance and individualism dimensions into one dimension.

Beugelsdijk and Welzel (2018) contend that these shifts in values are the result of shifts in the objective living conditions, partly fueled by socioeconomic development. Interestingly, Brazil has undergone significant economic development. In the early 1990s, Brazil's capital market was underdeveloped, with a market capitalization of approximately 10% of gross domestic product at US\$130 billion (Carvalho & Salotti, 2013). By the early 2000s, its market capitalization went to US\$2 trillion, which is over 100% of gross domestic product (Carvalho & Salotti, 2013). According to Beugelsdijk & Welzel's (2018) framework for cultural change, increasing economic development would foster a change in values. Given the economic expansion in Brazil, according to this framework, the younger generation in Brazil would shift from collectivism towards individualism and from duty to joy. The question is whether this shift may have impacted the professional skepticism of these Brazilian auditors. Could it be that there has been a cultural shift towards more individualism and less power distance in this generational cohort of Brazilian auditors? Such a shift may have resulted in this group feeling more comfortable about questioning the client's assertions, generating alternative explanations and increasing the hours budgeted for auditing work, essentially exercising more professional skepticism. These shifting norms could mean less of an orientation towards acceptance of hierarchy and acceding to those in authority, which could help explain why no significant differences between the Brazilian and Canadian groups were found.

Perhaps there is a need to look at culture by generation instead of collectively. Hofstede (2001) contends that there is persistency in the cultural dimensions, but perhaps, as Beugelsdijk and Welzel (2018) have found, that although there is stability in the relative national cultural differences and rankings of countries, within a culture, cultural values are persistent within generations but dynamic between generations. As these authors note, "...adaptive value shifts of

this kind happen to some extent within generations but they usually proceed much more profoundly between generations because people tend to stick more strongly to their once adopted values as they age” (p. 1470).

The findings of this study indicate that the professionally skeptical judgments and decisions of entry-level auditors in Brazil and Canada were not significantly different. Possible factors contributing to these findings include the nature of the accounting standards and a shift in cultural values that may have affected this generation of auditors.

5.3.2 Professional skepticism and auditor traits

Researchers have investigated the impact of traits on auditors’ professional skepticism and found that personal dispositions correlate with the exercise of professional skepticism (Hurt, 2010; Quadackers, 2009 Quadackers et al., 2014; Rose, 2010). These studies focused on auditors from one specific national culture, whereas this study looks specifically at whether skepticism as a trait impacts professionally skeptical judgments and decisions in a cross-cultural setting. The expectation was that the skeptical personality traits of auditors would correlate with the professional skepticism of auditors, regardless of their cultural norms or beliefs. The findings of this study do not support this expectation for the two skeptical traits investigated.

Two standardized measures of skeptical traits were investigated in this study. These traits have been found by other researchers to correlate with professionally skeptical judgments and decisions (Quadackers et al., 2014). The first was the inverse score of the RIT measuring skeptical traits, reflecting a lack of trust. The second was the HPSS, measuring a disposition of professional skepticism. The results of the study indicate that neither measure of skepticism as a trait correlated with the professionally skeptical judgments or decisions of Brazilian auditors. Neither being less trusting (inverse RIT) nor more skeptical (HPSS) correlated with more

professionally skeptical judgments or decisions by auditors from Brazil. In Canada, the findings indicate that there was no support for the trust level of auditors, measured by the inverse RIT score, correlating with skeptical judgments and decisions. However, a correlation was found between high scores on the HPSS scale and professionally skeptical judgments and decisions for Canadian auditors. These findings support the research by Quadackers et al. (2014), which highlights that auditors with skeptical dispositions exercise more professional skepticism, as demonstrated by generating more skeptical judgments. Interestingly, from a cultural perspective, Hofstede's (2001) cultural dimensions index scores for the power distance and individualism–collectivism of the auditors used in the study (Quadackers et al., 2014) from the Netherlands – 38 and 80, respectively – are similar to the cultural dimensions for Canadian auditors (39 and 80). The scores for power distance and individualism–collectivism of these two countries, the Netherlands and Canada, are significantly different from the cultural dimension scores of Brazil at 69 for power distance and 38 for individualism–collectivism. The findings of this study indicate that it does not appear that skepticism as a trait relates to the professional skepticism of auditors across all cultures, especially in Brazil. The implication of this finding is that the use of traits to aid with recruiting and training candidates for entry to the auditing profession may not be generalizable on a global basis in all cultures

The major finding of this study is that there is no discernable difference in the professionally skeptical judgments and decisions of entry-level auditors from Canada and Brazil. This study also highlights that skepticism, as a trait does not relate to professional skepticism of auditors across all cultures. These results were different from what was expected. The possible reasons for these findings have been discussed. Other considerations could have been put for, such as the differences between the political regimes or the corruption index; however, this was outside the scope of this dissertation.

The next chapter summarizes the general conclusion of this study as well as outlining the practical contributions of the research for the producers of accounting information, such as companies and accountants, and the consumers of accounting information, such as investors and regulators, as well as the enablers of accounting information, namely auditors. The chapter also highlights the contributions to the academic literature. In addition, this chapter discusses the study's limitations and provides suggestions for future research.

Chapter 6: GENERAL CONCLUSION, LIMITATIONS AND FUTURE RESEARCH AVENUES

6.0 Abstract

This chapter provides a discussion of the general conclusions, and the pragmatic and theoretical contributions of the study. This chapter also discusses research limitations and highlights suggestions for future research opportunities.

6.1 Introduction

This chapter highlights the study's general conclusions and contributions, research limitations and future research opportunities. It first provides an overview of the study and discusses the study's conclusions as well as its contributions. The next section discusses the study's limitations. The final section highlights possible avenues for future research.

6.2 General Conclusion and Contributions

This section provides an overview of the research and summarizes the key findings. It also outlines the study's pragmatic and theoretical contributions.

As highlighted earlier in this thesis, Repko (2012) provides an integrated definition of interdisciplinary studies. Within his definition, he suggests that interdisciplinary studies are “a process of answering a question, solving a problem or addressing a topic that is too broad or complex to be dealt with adequately by a single discipline ...” (Repko, 2012, p. 16). Repko concludes that a focus on a topic that is too broad or complex presents an opportunity for applying an interdisciplinary approach to allow for a more “comprehensive understanding” of a topic. He also describes instrumental interdisciplinarity as a significant form of interdisciplinarity, which is “a pragmatic approach that focuses on research, methodological borrowing, and practical problem solving in response to the external demands of society” (p. 22). The research looks to addressing real-world problems through an integration of knowledge from relevant disciplines to build a comprehensive understanding (p. 23).

The complexity of and compliance with the IFRS on a global stage is an important issue in society. The role of auditing to ensure compliance with the IFRS is critical. One factor that has been cited as important for ensuring quality audits is the auditors' professional skepticism.

Concerns have been raised over the ability of auditors to exercise professional skepticism. This “real-world problem” cannot be explored through a single disciplinary lens. The research conducted in this study draws mainly from the disciplines of accounting, culture and psychology. This exploratory study of cross-cultural professional skepticism helps to fill a void in the literature, providing insights as to whether auditors from different cultures make different skeptical judgments and decisions. This study also looks at whether skepticism as a trait, which has been found to impact the professional skepticism of auditors, is exportable from one culture to another.

This research investigates whether there are differences in the skeptical judgments and decisions of entry-level auditors for different cultures, specifically, Canadian and Brazilian cultures. This study also investigates whether the skeptical traits of auditors, measured on the RIT and HPSS scales, correlates with the skeptical judgments and decisions of entry-level auditors from different cultures.

This research is an exploratory cross-cultural quantitative investigation of entry-level auditors’ skeptical judgments, based on Nelson’s (2009) model of professional skepticism. This study uses a theoretical framework for structuring research into cross-cultural risk and decision-making (McDaniel & Gregory, 1991) by using a survey instrument that has successfully been used to investigate auditors’ professional skepticism (Quadackers, 2009). Two research questions were investigated. The first question was to determine whether differences in culture affect auditors’ professional skepticism judgments and decisions. The second question was to determine whether skepticism as a trait of auditors from different cultures correlates with their skeptical judgments and decisions. The study was conducted on entry-level auditors in Canada and Brazil employed by one of the Big Four auditing firms.

The study findings indicate that culture was not a differentiating factor in the judgments and decisions of auditors from Brazil and Canada. Furthermore, this study suggests that skepticism as a trait is not a predictor of more skeptical judgments and decisions by auditors from different cultures. This study finds that neither Brazilian nor Canadian auditors' skeptical traits, measured via the RIT, impacted the skeptical judgments and decisions of these auditors. The study found a correlation between Canadian auditors' skeptical traits, measured via the HPSS, and auditors' skeptical judgments and decisions, but this correlation was not found for Brazilian auditors.

The results of the study indicate that culture was not found to be significant in the exercise of professional skepticism by these auditors. In addition, the results highlight that skepticism as a trait was not found to correlate with skeptical judgments and decisions for both cultures. This research is useful both on a practical and theoretical basis.

Auditing is performed in a very complex environment with multiple accountabilities. The corporate reporting supply chain (American Institute of Certified Public Accountants (AICPA), 2008), adapted and presented in Exhibit 1.1, highlights some of the producers, consumers and enablers of business information. Auditors, the enablers of this information, are accountable to their client, to standard setters, to potential investors, to regulators and to their own profession; this research is relevant to each of these stakeholders. In particular, accounting and auditing standard setters, as well as auditors, would find this research relevant, as it provides greater insight about the nature of auditors' professional skepticism in a cross-cultural setting, which has implications for multinational audits and the impact of these on the interpretation and the application of standards such as the IFRS.

One of the primary focuses of this study was to address concerns raised by the CPAB, which has inspected audit firms for over the last decade. Although, over the years, the CPAB has seen considerable improvements in the auditing quality of these firms, there are still noted deficiencies in the annual reviews conducted by the CPAB. Specifically, in the 2014 inspection report (CPAB, 2014), areas identified as persistent challenges include understanding and evaluating internal control, applying professional judgment, auditing complex accounting estimates, auditing in foreign jurisdictions and executing professional skepticism. There are also concerns over the professional skepticism of entry-level auditing staff. In addition, these regulators have highlighted problems of over-reliance on component auditors located in foreign jurisdictions. This study sheds light on the professional skepticism of entry-level auditors from two distinctly different cultures. Specifically, the study did not find any differences in the skeptical judgments and decisions of entry-level auditors from two countries, Canada and Brazil, which have both adopted the IFRS for corporate reporting. This result would be of interest to regulators who have concerns about the quality of transnational audits.

The results of this research are also relevant to auditors themselves and their firms who may be interested in the factors that affect auditors professional skepticism when operating in complex global environments and the implications of these on audits of financial information to ensure compliance with the IFRS. The findings of this exploratory study would be of interest to audit companies who perform cross-national audits of multinational companies. The study does not find that the professional skepticism of entry-level auditors are affected or influenced by cultural values. The study also finds that skepticism as a trait, specifically as measured by the HPSS, correlates with the professional skepticism of Canadian auditors but not Brazilian auditors. These findings present an important consideration for international auditing firms in

their recruitment and training of entry-level auditors. What may be useful in one jurisdiction may not be translatable to other jurisdictions.

This research is also relevant for academics in auditing, culture and psychology. This study provides additional insight into the antecedents that impact auditors' professional skepticism as outlined by Nelson's (2009) model. This study adds to the literature by investigating the impact of culture on the professional skepticism of entry-level auditors. This study also contributes to the literature investigating the effect of skepticism as a trait of auditors (Hurt, 2010; Quadackers et al., 2014) on auditors' skeptical judgments and decisions by investigating this in different cultures.

Academics studying culture may find the results of this study interesting, as they relate to the context of cultural theories and the implications of this on judgments and decision-making. Such academics may also find this study interesting, as it may relate to the dynamics of cultural change (Beugelsdijk & Welzel, 2018; Hofstede, 2001; Inglehart & Welzel, 2005). This study may also be of interest to academics studying cross-cultural psychology who are interested in determining the exportability of skeptical trait scales from one culture to another.

6.3 Limitations

This study has some limitations. The study is based on a convenience sample and not a random sample. Furthermore, the sample was drawn from one of the Big Four accounting firms. The results may be affected by firm specific attributes, such as training, that may not be found in other large, or medium-sized public accounting firms. The study also uses auditors who are very familiar with and educated in the IFRS, which may have been a factor contributing to the lack of differences. In addition, the results of the study could be a result of self-reporting bias constructed

on social desirability. As with other studies involving case analysis, it may not fully replicate actual work conditions, including the interpersonal interactions between the client and auditing staff.

6.4 Future research

This exploratory study provides some insight as to whether differences exist in the professional skepticism of entry-level auditors from two distinctly different cultures. The findings raise the question as to why these differences did not exist. This question suggests that there may be a need to investigate whether these findings can be transferred to other cultures and other age groups.

This study was based on two cultures. Exploring whether these findings exist for other national cultures would be beneficial to the stakeholders of auditors on a practical level and to academics interested in such questions on a theoretical level.

In addition, this study explores the impact of the cultural dimensions represented in the norms, values and beliefs of a collective group of individuals. It explored whether differences in culture affected the judgments and decisions of these people. This study was not designed to investigate the impact of generational cultural change on the professional skepticism of auditors; however, given the results of this study, this may be an area that deserves further research. Investigating whether these findings based on entry-level auditors would be similar for other generations from the same cultures would be an exciting avenue for inquiry.

This research involves human studies. It is evident that the accounting numbers in financial statements are “illusive economic realities which eventually turn into a published official reality of the corporate, industrial, economic and international economic arenas” (Biondi

& Suzuki, 2007), which directly impact the lives of ordinary people. The importance of that reality is the motive for examining the facets of the auditing process that affect quality audits, specifically auditors' professional skepticism in transnational settings.

Exhibit 1.1 The Corporate Reporting Supply Chain

Adapted American Institute of Certified Public Accountants (AICPA), 2008 (p.7)

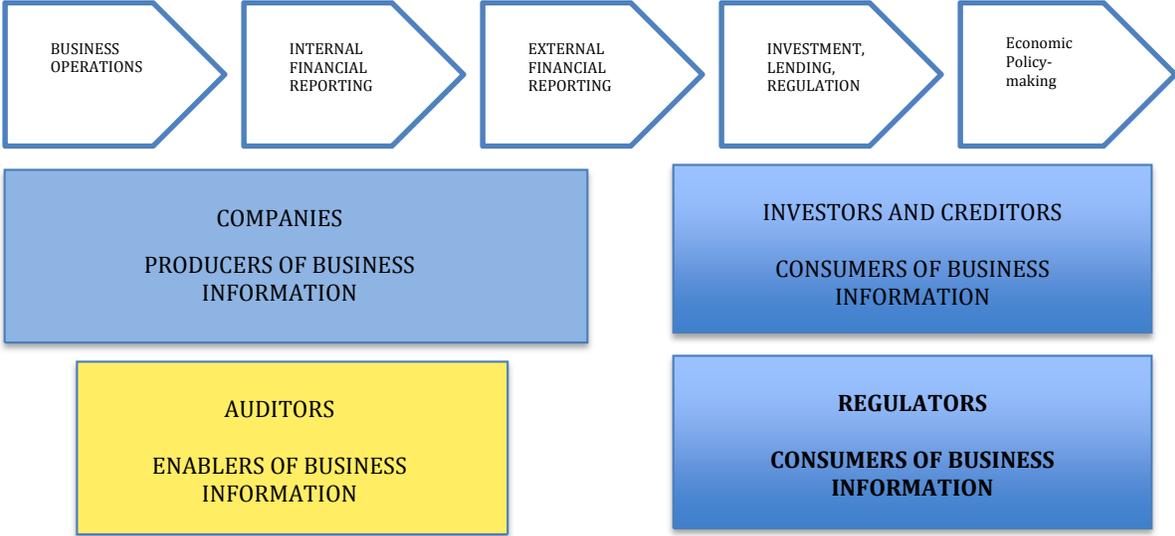


Exhibit 3.1 Survey Instrument

Instructions:

Thank you for your participation in this research study. The study is looking to gain insights into decision-making in an audit setting.

To participate, I will ask you to assume the role of an auditor performing a preliminary analytical review for a hypothetical client. The background and details concerning the client are provided below. Please note there are no right or wrong answers. Your participation is voluntary and your identity will be kept confidential.

Part 1

CASE

MAedic is a fifty-year-old public company that develops, manufactures and markets pharmaceuticals and medical instrumentation. The firm consists of three divisions. Your firm has audited the company's financial statements for the last three calendar years.

Management's control philosophy

The management of MAedic N.V. can be described as being aggressive in business practices and emphasizes speed and efficiency when implementing decisions. The management rarely hires external consultants because they are of the opinion that consultants are expensive and often follow a too conservative approach. The top management and lower management meet during monthly production-meetings. The management views the IT department as a necessary evil and considers the accountants and bookkeepers who work there to be "bean counters". Because the management has a clear preference for reporting methods that enable earnings management, the management has frequent disputes with the external auditor. Although there are a large number of internal control procedures in place, they are sometimes less strictly applied if the progress of the work is suffering from them. The top management mainly focuses on achieving short-term accounting-based performance measures when determining compensation and making promotion decisions. Productivity is the most important criterion in performance assessment. Directors receive a small base salary and a bonus that is based on the profitability of the department in question. The management is convinced that this compensation system encourages healthy competition and personal initiative.

Results of preliminary analytical review

It is November 2012 and you have just begun conducting a preliminary analytical review of MAedic's third quarter financial statements. Oddly, the gross margin percentage is on pace to increase by roughly 10% over last year's 32.73% to 36.04%. The change is well above the five-year range of 32.1% to 32.8% and mean of 32.5% as well. Notably, without the change, this year's total gross margin would be roughly \$15.5 million lower than currently recorded. While MAedic's gross margin percentage has always been slightly better than industry averages, this year's mark is well above the predicted industry-average of 33.0%. The tables below highlight the increase:

Third Quarter Data (in millions of \$'s)	2011 3rd Quarter Totals	2012 3rd Quarter Totals	2012 3rd Quarter Prescription Drugs	2012 3rd Quarter Household Products	2012 3rd Quarter Medical Instrumentation
Net Sales	\$315.00	\$471.70	\$245.30	\$99.10	\$127.30
Cost of Goods Sold	\$211.90	\$301.70	\$161.60	\$69.30	\$70.80
Gross Margin	\$103.10	\$170.00	\$83.70	\$29.80	\$56.50
Gross Margin %	32.73%	36.04%	34.12%	30.07%	44.38%

Sales Mix of the divisions in 2011 and 2012

	Prescription drugs	Household Products	Medical Instrumentati on	Total
% of sales 2012	52%	21%	27%	100%
% of sales 2011	55%	32%	13%	100%

CFO's Explanation for the findings

When you ask the management about the increase, the CFO, Alex North, explains: “Our margin is up, way up. But our sales mix changed this year. In 2012, our medical instrumentation products have done better than before. Naturally, our margins will improve when we sell relatively more of our instrumentation products, and they have boomed this year. Fortunately, we are currently the most qualified firm to meet high-end users’ demands, and our clients are quite appreciative of our products. Prices on instrumentation sales range all over the place, from just over ten thousand dollars to over a million in some cases. But, for the record, we average \$53,000 per sale and can gross over 45% per sale, depending on how negotiations go with the client. Take that, and compare the percentage of revenue accounted for by instrumentation sales this year (27%) to last year’s figure (13%) and you will understand what caused our gross margin percentage to go up.”

Q1 Task 1

Take a moment to focus on the increase in the gross margin percentage and the explanation of the CFO that the increase is caused by the sales mix. Then take a few minutes to think about other possible explanations for the increase in the gross margin percentage in the case description above. Write down the other possible explanations that you think of in the table below. Also briefly describe how it could have caused part or all of the fluctuation. Be as brief and specific as possible. The explanation of the CFO is the first explanation in the table. If you want to add explanations, please put them in the table and number them. After you have written down and numbered all the explanations in the table, please allocate 100% to the explanations (in terms of their likelihood of occurrence). You have to allocate the highest percentage to the explanation with the highest likelihood to cause substantially all (i.e. >85%) of the gross margin percentage increase. Allocate lower percentages to the explanations with lower likelihoods. Do not forget to allocate a percentage to the explanation of the CFO!

Number	Explanation for the increase in the gross margin percentage in the case description above	% in terms of likelihood (Total = 100%)	
#1	The composition of the sales mix has lead to the increase in the gross margin percentage (see CFO explanation) (Please remember to allocate a % to this explanation. If this explanation does not deserve a % please write 0%)		
Total		Total = 100%	

Attention: Did you allocate a total of 100%?

Q2 Task 2

Last year's (2011) budget for substantive testing regarding the sales account was 100 hours. Last year, there were no specific points meriting attention. Assume that the increase in the gross margin is the only specific issue concerning the sale-account as opposed to last year. Indicate how many hours you want to budget this year for substantive testing of the sales account.

Budgeted hours in 2011: 100 hours

Budgeted hours in 2012 ___ hours (please indicate the number of hours)

Part 2

Q1

I am interested in finding out a little about you. Please select the response that indicates how you generally feel. There are no right or wrong answers. Do not spend too much time on any one question. Using the scale from 1 to 5, with 1 representing strongly agree and 5 representing strongly disagree, select a response that indicate how much you agree or disagree with the statement.

	Strongly Agree	Mildly Agree	Neither Agree or Disagree	Mildly Disagree	Strongly Disagree
Hypocrisy is on the increase in our society.					
One is better off being cautious when dealing with strangers until they have provided evidence that they are trustworthy.					
This country has a dark future unless we can attract better people into politics.					
Fear and social disgrace or punishment rather than conscience prevents most people from breaking the law.					
An honor system in which teachers would not be present during exams would probably result in increased cheating.					
Parents usually can be relied on to keep their promises.					
The United Nations will never be an effective force in keeping world peace.					
The judiciary is a place where we can all get unbiased treatment.					
Most people would be horrified if they knew how much of the news that the public hears and sees is distorted.					
It is safe to believe that in spite of what people say, most people are primarily interested in their					

own welfare.					
Even though we have reports in newspapers, radio, TV, and the internet, it is hard to get objective accounts of public events.					
The future seems very promising.					
If we really knew what was going on in international politics, the public would have reason to be more frightened than they now seem to be.					
Most elected officials are really sincere in their campaign promises.					
Many major national sports contests are fixed in one way or another.					
Most experts can be relied upon to tell the truth about the limits of their knowledge.					
Most parents can be relied upon to carry out their threats of punishments.					
Most people can be counted on to do what they say they will do.					
In these competitive times, one has to be alert or someone is likely to take advantage of you.					
Most idealists are sincere and usually practice what they preach.					
Most salesmen are honest in describing their products.					
Most students in school would not cheat even if they were sure they could get away with it.					
Most repairmen will not overcharge, even if they think you are ignorant of their specialty.					
A large share of accident claims filed against insurance companies is phony.					

Most people answer public opinion polls honestly.					
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Part 2

Q2

Statements that people use to describe themselves are given below. Using the scale from 1 to 6 please select the response that indicates how you generally feel. Please note that the scale has changed for these questions from the previous questions. For these statements, a 1 indicates strongly disagree and 6 indicates strongly agree. There are no right or wrong answers.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
I often accept other people's explanations without further thought.						
I feel good about myself.						
I wait to decide on issues until I can get more information.						
The prospect of learning excites me.						
I am interested in what causes people to behave the way that they do.						
I am confident of my abilities.						
I often reject statements unless I have proof that they are true.						
Discovering new information is fun.						
I take my time when making decisions.						
I tend to immediately accept what other people tell me.						
Other people's behavior does not interest me.						
I am self-assured.						
My friends tell me that I usually question things that I see or hear.						
I like to understand the reason for other people's behavior.						
I think that learning is exciting.						
I usually accept things I see, read, or hear at face value.						
I do not feel sure of myself.						

I usually notice inconsistencies in explanations.						
Most often I agree with what the others in my group think.						
I dislike having to make decisions quickly.						
I have confidence in myself.						
I do not like to decide until I've looked at all of the readily available information.						
I like searching for knowledge.						
I frequently question things that I see or hear.						
It is easy for other people to convince me.						
I seldom consider why people behave in a certain way.						
I like to ensure that I've considered most available information before making a decision.						
I enjoy trying to determine if what I read or hear is true.						
I relish learning.						
The actions people take and the reasons for those actions are fascinating.						

Part 3

In this part of the study I want to learn a little more about who has participated in the study. This part consists of demographic questions. All information is confidential and will only be reported after being combined with the responses of the other auditors participating in the study.

Q1 Please select the degree(s) that apply to you.

- BA in other fields
- BA --Accounting
- BSci/BBA/BComm Accounting
- BSci/BBA/BComm in other fields
- Masters – Accounting
- Masters in other fields
- Other (please specify) _____

Q2 What professional designation(s) do you have? (please list all)

Q3 Audit position? (please select one)

- Staff
- Senior
- Manager
- ____ Other (please describe) _____ (5)

Q4 How long have you been employed as an auditor? _____ year(s) _____ months

Q5 What is your mother tongue

- English
- French
- Other (please specify) _____

Q6 What is your age? (Please specify) _____

Q7 How long have you lived in Canada? _____ year(s)
_____ months

Part 4.

Questions about the MAedic N.V. case

Definition: According to the ISA's "control risk is the risk that a misstatement that could occur in an assertion and that could be material, either individually or when aggregated with other misstatements, will not be prevented, or detected and corrected, on a timely basis by the entity's internal control (ISA 200.20).

According to you, what would be the level of overall control risk (control risk at the level of the organization) of MAedic N.V., given the information available? (Circle the appropriate number)

Very low
risk

Very high
risk

1 2 3 4 5 6 7 8 9

Definition: According to the ISAs, the 'control environment' includes the governance and management functions and the attitudes, awareness and actions of those charged with governance

and management concerning the entity's internal control and its importance in the entity (ISA 315.67).

How effective do you consider the control environment of MAedic N.V. to be?

Very
Ineffective

Very
effective

1 2 3 4 5 6 7 8 9

What is the likelihood of fraud (1–100%) based on the results of the preliminary analytical review, given the case description of the company and the management's philosophy?

_____ %

How realistic do you consider the case to be? (circle the appropriate number)

Highly unrealistic

Highly realistic

1 2 3 4 5 6 7 8 9

Remarks/suggestions

If you would like to receive a copy of the results of the study, please provide your e-mail address below.

Thank you for your participation!

Exhibit 3.2 Letter of Consent



Dear Auditor,

I am conducting research for my Ph.D at Laurentian University. I am investigating factors that might affect auditor decision-making in an auditing setting. I am requesting your participation in this very important research, which can help to advance knowledge in the area of auditing.

Your participation in this study would be greatly appreciated and is critical to the successful outcome of this study. To participate in this study you are asked to complete a number of tasks and answer several questions pertaining to a hypothetical public client case. The questionnaire should take no more than 60 minutes to complete. The survey is completely anonymous and your identity will be kept confidential. There is no linking information from the research to your identity. Only the overall results of the group answering the survey will be reported. By participating in the study, you will be entitled to a copy of the research findings. You can receive a copy of the findings by e-mailing me at: smcgillis@laurentian.ca.

This study has been reviewed and approved by the Laurentian University ethics committee. The final decision about participating in this study is yours. You have the right to discontinue the survey at any time, or refuse to answer any question. The data from the study will follow the data security and disposal protocol required by the ethics committee. Should you have any questions regarding this study, please contact me by e-mail at smcgillis@laurentian.ca or telephone 705-675-1151, ext. 2127 or my supervisor, Dr. Belaid Aouni by e-mail at belaid.aouni@qu.edu.qa. Should you have any concerns regarding the ethical conduct of the study, please feel free to contact the Laurentian University Ethics Officer, telephone: 705-675-1151 ext. 2436 or toll tree at 1-800-461-4030 or email ethics@laurentian.ca.

Please note that the online survey is hosted by "Qualtrics" which is a web survey company located in the USA. All responses to the survey will be stored and accessed in the USA. This company is subject to U.S. laws, in particular, to the U.S. Patriot Act that allows authorities access to the records of Internet service providers. If you choose to participate in the survey you understand that your responses to the questions will be stored and accessed in the USA. The security and privacy policy for Qualtrics can be viewed at <http://www.qualtrics.com/security-statement/>.

The study webpage URL is [STUDY](#) Please click on this URL link or copy and paste this webpage URL into your computer web browser. By clicking on this link to the survey you are consenting to be a part of this research.

Thank you in advance for your participation in this study.

Sincerely,

Sheila McGillis, MBA, CPA
Assistant Professor
Ph.D. Candidate
Laurentian University
E-mail: smcgillis@laurentian.ca
Phone: 705 675-1151 x 2127

Exhibit 3.3 Ethics Approval



APPROVAL FOR CONDUCTING RESEARCH INVOLVING HUMAN SUBJECTS
Research Ethics Board – Laurentian University

This letter confirms that the research project identified below has successfully passed the ethics review by the Laurentian University Research Ethics Board (REB). Your ethics approval date, other milestone dates, and any special conditions for your project are indicated below.

TYPE OF APPROVAL / NewX / Modifications to project / Time extension	
Name of Principal Investigator and school/department	Sheila McGillis, PHD Candidate, Human Studies, supervisor, Belaid Aouni
Title of Project	IFRS and Auditor Professional Skepticism
REB file number	2015-08-04
Date of original approval of project	Sept. 22 2015
Date of approval of project modifications or extension (if applicable)	
Final/Interim report due on: <i>(You may request an extension)</i>	September, 2016
Conditions placed on project	

During the course of your research, no deviations from, or changes to, the protocol, recruitment or consent forms may be initiated without prior written approval from the REB. If you wish to modify your research project, please refer to the Research Ethics website to complete the appropriate REB form.

All projects must submit a report to REB at least once per year. If involvement with human participants continues for longer than one year (e.g. you have not completed the objectives of the study and have not yet terminated contact with the participants, except for feedback of final results to participants), you must request an extension using the appropriate LU REB form. In all cases, please ensure that your research complies with Tri-Council Policy Statement (TCPS). Also please quote your REB file number on all future correspondence with the REB office.

Congratulations and best wishes in conducting your research.

Rosanna Langer, PHD, Chair, *Laurentian University Research Ethics Board*

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