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COMPETENCY IN GST FOR CHARTERED PROFESSIONAL ACCOUNTANTS: ANALYZING AN EXPECTATION-PERFORMANCE GAP

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Abstract

This study investigates the extent to which Canadian accountants meet the day-to-day needs of stakeholders, with a specific focus on the goods and services tax (GST) competencies expected of accountants. There is a noteworthy absence of academic research on technical competencies in taxation, such as GST. A mixed methods analysis of survey data from newly designated accountants, based on a theoretical proposition of an expectation-performance gap, examines the competencies expected by stakeholders and the actual competencies demonstrated by newly designated accountants. A hypothesized expectation-performance gap analysis of newly trained accountants in GST competence concluded that, overall, there is none. When breaking down expectation-performance gaps by specific GST competencies, some gaps emerged. The role of the work experience for newly designated accountants was then examined as a co-occurring factor, and further gaps were revealed when considering employment experience. The study also sought to understand how accountants close gaps from the accounting qualification process in technical GST competency through continuing professional development. The research concluded why accountants engage in continuing professional development in GST and how the industry and educators can address accountants' needs through ongoing GST education.

Keywords: *accountant, competency development, competency map, CPA, expectation-performance gap, GST, goods and services tax, tax, value added tax*

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Chapter 1: Introduction

The colloquialism "behind every great business is a great accountant" originates from a broad range of accounting business competencies developed through a lengthy training process. When small businesses decide to obtain outside business help, the resource they call upon first is usually an accountant (Audet et al., 2007). The national Canadian accounting association, Chartered Professional Accountants of Canada (CPA Canada), describes professionally designated accountants (hereafter referred to simply as "accountants") as recognized across the world for their competence in the profession (CPA Canada, n.d.-e). This study explores the extent to which Canadian accountants are meeting the day-to-day needs of stakeholders, with a specific focus on the goods and services tax (GST) competencies expected of accountants, and those acquired through the formal accounting education and training program. As this study specifically examines Canadian accountants, its study of value-added tax (VAT) will focus on the GST as Canada's nationwide VAT.

1.1 Motivations for the Study

The accounting curriculum, as a progression from undergraduate education to the professional education program (PEP), should ensure that accounting graduates are educated and trained to be competent practitioners. Accountants must demonstrate the competencies outlined in the competency map (CM), developed by CPA Canada (CPA Canada, 2020), to obtain their professional designation. Previous studies have reported perceived gaps between employers' expectations and competencies of accountants, across all competencies (Jackling & De Lange, 2009; Kardos & Farkas, 2016; Kavanagh & Drennan, 2008; Uwizeyemungu et al., 2020).

Historically, although the GST[1] has existed for almost 30 years, accountants have not been required to demonstrate competence in GST to obtain their accounting designation, and there does not appear to be any prior academic research suggesting why GST had not been previously embedded into the accounting competency framework. A review of the competency maps of the legacy accounting professions shows no requirement for any GST competence in the legacy Certified Management Accountants (CMA) or Certified General Accountant (CGA) programs (CGA Association of Canada, 2009; The Society of Management Accountants of Canada, 2011). The legacy Chartered Accountant (CA) profession included GST alongside other specialty tax items, such as scientific research and experimental development tax credits and not-for-profit tax returns, and only required that candidates demonstrate retrieval and comprehension skills with a low level of application (The Canadian Institute of Chartered Accountants, 2013).

Recently, the profession has reconsidered the competencies expected by stakeholders of newly trained accountants through an outreach project (CPA Canada, 2018). After consultation with internal and external stakeholders to the profession, the CM was updated in 2019 to include a requirement for competence in GST; however, this requirement applied only to accountants seeking overall competence in the taxation area (CPA Canada, 2020). This change to the CM, effective January 2019, increased the GST technical competencies required of an accountant seeking to demonstrate competence in taxation and also incorporated GST knowledge into the core modules taken by all accountants enrolled in the PEP (CPA Canada, 2018). Specifically, this additional content required that candidates be able to discuss the GST system in Canada,

[1] For the purposes of this proposal, all references to GST also relate to HST in provinces with a harmonized provincial sales tax.

analyze and calculate GST obligations of a taxable entity, discuss GST compliance requirements, and analyze GST implications from tax planning and other transactions. The specific sections where accountants are required to demonstrate competence form a basis for the survey used in this study. Translating these new competencies to the CPA Canada taxonomy, candidates will need to demonstrate that they can explain and discuss GST concepts at an appropriate level of competence. When comparing the GST to the personal and income tax competency requirements, candidates need to reach a higher level of competence for analysis and advice on income tax matters (CPA Canada, 2020).

The aforementioned changes to the CM were embedded in the curriculum of the PEP for offerings started after January 2019, and first tested on the common final examination in September 2020. Specific content coverage on the GST has only appeared in three CFE examinations. First, in September 2021, and second, in May 2022, during the second comprehensive case, students who selected a taxation role were required to calculate a GST return and explain the implications of GST on certain items. In September 2022, during the day two comprehensive case of the CFE, candidates were asked to examine the GST implications of a purchase, marking the third time their GST competence was tested.

University-level programs were required to integrate these new GST competencies into their prerequisite courses by September 2021 with an earlier integration into prerequisite courses offered by the profession through CPA preparatory courses effective throughout 2019 and 2020. Accountants pursuing a depth or breadth competency in taxation were required to demonstrate competency in GST after September 2019 (CPA Canada, 2020). While a new CM is in development (CPA Canada, 2022a), at the time of completing and publishing this study it had not yet been enacted. To meet the requirements of the profession, post-secondary institutions will

need to update undergraduate accounting course curricula to offer prerequisites in GST competency, which will depend on the availability of appropriate course materials. Implications derived from this study on the new CM and post-secondary institutions are explored further in Chapter 5.

Despite recent reforms to the CM to include GST knowledge in the taxation competencies (CPA Canada, 2018), there has been little fanfare associated with this change in the amalgamated profession. A review of the leading accounting trade publication, *Pivot*, between 2018 and 2019, revealed only one article that discussed GST or harmonized sales tax (HST) implications (Taylor, 2019). Conversely, a review of the leading CA trade publication, *CA Magazine*, between 2007 and 2012 found articles on GST or discussions on indirect taxes appearing approximately every six months. This difference in topic coverage could be explained by the increased attention toward GST or HST during the implementation of an HST regime in Ontario and British Columbia in 2010; it could also be related to a general cultural shift within the profession due to the amalgamation of the three legacy accounting professions, which lead to less of a focus on accounting and tax standards (Richardson, 2017).

Based on a recent study of the Canadian context of competencies sought for accountants in the labour market, conclusions can be reached that technical competencies are currently the most sought after by prospective employers trying to fill vacancies in accounting (Uwizeyemungu et al., 2020). While GST competence was not specifically addressed, Uwizeyemungu et al. (2020) did find that tax aggressiveness was among one of the three most underlying overall characteristics sought by employers. The study explored if tax related competencies, specifically GST, should be more highly developed in newly qualified accountants based on expectations to demonstrate these competencies by employers or clients.

1.2 Objectives of the Study

The academic community in Canada and abroad has conducted studies of accounting competencies in technical areas such as financial accounting topics, as well as soft skills such as communication and ethics. However, there is a notable lack of scholarship regarding technical competencies in taxation, such as GST. This research study investigates competency-based education in accountants and existing academic research into the desired competencies for accountants, leading to a better understanding of the needs of Canadian stakeholders. A theoretical proposition of an expectation-performance gap for employers in the technical tax competencies in GST of newly trained accountants examined, led to further research questions exploring expectation-performance gaps in newly trained accountants, and how accountants build GST competence post-designation. The study results explored where expectation-performance gaps exist based on this research and improvements that can be made toward closing these gaps.

Common career paths in accounting firms include auditing and taxation, while non-accounting firm careers, known in the profession as "industry", the individual can choose between corporate, management, or public-sector accounting. Accounting firms are divided into three subcommunities, each with its distinct characteristics. The first sub-community consists of the 'big four' accounting firms, KPMG, PwC, Deloitte, and Ernst and Young, which are primarily international in scope and boast a large, complex client focus. The second sub-community of accounting firms provides national coverage and is linked with international firms. The third sub-community consists of regional and local accounting firms primarily serving small and medium-sized clients (Greenwood et al., 2002). Each sub-community of accounting firms interacts with the profession differently. Members of large firms are the least likely to participate

in the training and post-certification professional development offered by the institutes (Greenwood et al., 2002), presumably because these firms are better equipped to offer such training in-house. Following this logic, small firms rely more on professional association continuing professional development (CPD) to maintain and improve their technical knowledge than larger firms do. Research questions on the expectation-performance gap were analyzed via the lens of the employment category and its effect on any perceived gap, building on this knowledge of how employer groups are distinct and separate in the accounting sector.

This research provided a deeper understanding of the nature of the expectation-performance gap and how accountants are developing GST competence to meet the needs of stakeholders. This knowledge informed recommendations to support employers, the professional associations and post-secondary institutions in further developing pre and post-qualification GST competence. Accountants who are interested in understanding where they may have gaps in their competence to meet workplace needs will also benefit from the conclusions from this research.

1.3 Significance of the Research

This research study is based on the theoretical proposition of an expectation-performance gap. Throughout the literature review Bui & Porter's (2010) expectation-performance gap model is explored. This study applies the expectation-performance gap model in a different manner than previously considered. As developed throughout the literature review, prevalence of academic study in GST or other technical competency development in Canada, outside of direct study by the profession, is rare. Studies of this nature support academic dialogue on the competency development for accountants.

This research will directly appeal to two audiences: the post-secondary community for preparing undergraduate accounting students with desired workplace skills; and the accounting

profession, both in Canada and internationally, in relation to ensuring the relevance of competencies of the profession. Other professions, such as law, medicine, or engineering, within Canada, may also benefit from conclusions from this project about the breadth of technical competencies to enhance ongoing professional development and continue to build competence. This project will also support the ongoing academic dialogue about effective training methods for accountants under a continuous improvement model, recognizing that not all competencies desired by stakeholders may fit within accountant qualification training. Given the identified lack of research on GST competency development, the results of this study may serve as a springboard for future investigations of other areas of technical competence development in accountants or critical examination of the new CM 2.0.

Possible ancillary outcomes from this project include clearer communication on the part of the accounting profession to inform newly trained accountants about the advantages of engaging in CPD to further develop technical competencies that are desired by employers. To the extent that differences were highlighted between respondents in different training paths, the accounting profession will be able to make CPD offerings more relevant to newly trained accountants based on their employment class. Employers who want to support accountants to upgrade their professional skills will benefit from the findings. Finally, this study will contribute to the academic dialogue in Canada with a critical lens if the current or future proposal education programs meet the needs of stakeholders of the profession.

1.4 Overview of Dissertation

Chapter 2 consists of a literature review in three main areas: background information on GST in Canada, an overview of the concept of a competency framework, and a discussion of how accountants gain competency throughout their professional experience. The study then

moves into the project's theoretical framework by exploring the concept of an expectation-performance gap where four research questions emerge. Chapter 3 lays out a quantitative research methodology and analysis, with some additional qualitative analysis, to respond to the four research questions. The chapter includes the determination of sample size, methods and challenges of data collection, quantitative and qualitative analysis processes and research protocols. Actual data and the results of the statistical and thematic analysis are presented in Chapter 4 with a conclusion on, if the hypothesis from the research questions was supported or not. Chapter 5 is a discussion on the findings as well as the overall contribution of the study to the practice and to the body of research, along with a discussion on future research that could follow from this study.

Chapter 2: Literature Review

This literature review begins with outlining the introduction of GST in Canada, moves into a discussion of competence in general and the literature on competency development for accountants in particular. The Canadian accounting profession is explored, focusing on the amalgamation of the three legacy accounting professions and how this integration has influenced competency development outside the formal accounting field. Additionally, a theoretical framework addressing the expectation-performance gap is examined.

2.1 Background on the Goods and Services Tax

GST in Canada was introduced in 1991 (Drysdale, 2010) as a successor to the more complex Manufacturer's Sales Tax (MST) (Bolton & Dollery, 2005; Curtis & Kingston-Riechers, 2010). It was highly praised as a way to trigger a sales tax reform to raise Canada's potential economic growth. The implementation and ongoing compliance requirements were meant to be straightforward (Mazankowski, 1993). VAT, like Canada's GST, is a tax at the point of consumption, rather than at the point of production like the predecessor MST (Abbott, 2015). GST is designed to be a simple, broad-based, and efficient tax, allowing for a flow-through of taxes payable or recoverable, with any resulting tax refunds being paid quickly (Drysdale, 2010). GST in Canada is designed to be an end-user, consumer-based tax (Curtis & Kingston-Riechers, 2010). The payment of GST temporarily affects business cash flows while awaiting regular cycle reporting. However, there is no lasting effect on net profit or loss, except for any assessed interest or penalties due to non-compliance.

Critics of the GST structure argue that the nature of accounting for GST by registrants, with the risk of inappropriate refund of net tax, can slow down legitimate refund claims (Drysdale, 2010). The Canada Revenue Agency (CRA) (www.canada.ca/en/revenue-

agency.html) estimates a figure of $2.9 billion in uncollected GST or HST revenues (Taylor, 2019). The introduction of GST in Canada between 1991 and 1993 was estimated to have spurred growth in the underground economy by 2% of gross domestic product to avoid GST charges (Barcelo, 2016). GST represents $38.2 billion in annual revenues to the Canadian government, third in the ranking of magnitude after only personal and corporate income tax (Government of Canada, 2019), with over three million registered individual or corporate filers (CRA, 2017a). The largest lobby body on behalf of Canadian small and medium-sized businesses, the Canadian Federation of Independent Businesses, has criticized the combined Canadian tax regime as an overly complex system that forces businesses in Canada to spend $12.6 billion a year in compliance costs and tax advice ("Filing Too Taxing for Business," 2008). Indirect taxes, defined as HST (harmonized sales tax), GST, PST (provincial sales tax), or QST (Quebec Sales Tax), remain an ongoing topic of debate for professionals in Canadian tax. Ongoing discussion recognizes the increased risk surrounding indirect taxes and for businesses to recruit indirect tax expertise in-house ("Indirect Taxes - Canada's Transformation," 2012). Failure of accountants to live up to a performance expectation in GST can influence stakeholders for two reasons: the potential for a significant effect on the government's ability to properly administer GST, which, given the statistics presented above, could affect the overall Canadian economy; and its possible effect on corporations through the risk of penalties for non-compliance.

At the same time, a study of senior finance professionals worldwide concluded that Canada's GST is relatively user-friendly; the United Kingdom's VAT was rated the easiest indirect tax system for doing business, while Canada's ranked seventh among thirty-two countries ("GST in Global Top 10," 2008). Despite the perceived simplicities of the Canadian

GST framework, there remain areas of ambiguity where technical application challenges the knowledge base of a general accounting practitioner, such as place of supply rules and inter-jurisdictional differences in rates (Ilahi, 2010). As technology advances, businesses are increasingly operating without clearly defined boundaries, adding complexity to the application of what was conceived as relatively simple rules (Barcelo, 2016). Recent developments, such as an increase in the app-based sharing economy, have placed renewed focus on concepts such as place of origin or place of destination in the application of GST (Taylor, 2019). Many stakeholders, such as employers or clients, look to accountants for help with this complex area of indirect taxes.

The accounting profession claims exclusive jurisdiction over accounting and attestation services through provincial legislative rights. For example, the most recent CPA provincial legislation to pass in Canada in the Northwest Territories and Nunavut restricts anyone who is not a member of the provincial CPA body from engaging in the public practice of the profession (CPA Act, 2019). In this legislation, public practice is defined as both assurance engagements, such as audits; and reviews or preparing financial statements, such as compilation engagements. In practice, the legal and accounting professions both engage in aspects of providing taxation and GST services to clients, although lawyers focus more on case law issues with the legislation rather than compliance activities due to attorney-client privilege concerns (Mitchell, 2018). The accounting profession does not claim exclusive jurisdiction over taxation services; however, during the 1980s, while studying the scope of practice of accounting firms, the Canadian Institute of Chartered Accountants' committee on Long-Range Strategic Planning deemed tax services a core activity, along with accounting, information systems, and attestation (Greenwood et al., 2002).

2.2 The CPA Profession: At Point of Entry

Taxation and GST systems are not common knowledge among those who are just leaving the public education system. A review of consumer and financial education in Canada concluded that low levels of consumer and financial education are addressed in grade school (McGregor, 2018). With students entering post-secondary education with little understanding of taxation and GST systems, it stands that this knowledge base must be built in university. To qualify as an accountant in Canada, one must hold both an undergraduate degree and complete the CPA Canada PEP (CPA Canada, n.d.-b). Undergraduate degrees must be "validated" by the provincial accounting body and universities mirror undergraduate course work, to that required of CPA Canada, to ensure students have a clear path into the PEP. If not, there could be consequences for the university's ability to attract students to their accounting majors (Pimentel & Boulianne, 2021). Accountants undertaking PEP study, or who have completed PEP study but have not yet completed their required work experience, are referred to here as training accountants. These two phases of education work together to impart technical and professional competencies to the training accountant.

Jackling & De Lange (2009) found that recent graduates perceived their undergraduate accounting courses to be more focused on attaining technical skills than professional competencies. The accounting curriculum, as a continuum from the undergraduate level to the professional education program, should therefore ensure that accounting graduates are trained and educated to have the appropriate competencies to function as professional accountants. As such, professional competency requirements should be reviewed and updated regularly through a review of workplace requirements to help inform the changes (Barac, 2009).

2.2.1 Introduction of Competency in Accounting

A comprehensive literature review of accountant competencies cannot begin without first understanding the history of the Canadian accounting profession's transition to a competency-based framework. The competency-based approach to accounting education in Canada arose in the 1990s at about the same time as the GST. Before the late 1990s, accountants were assessed according to more traditional knowledge based educational approaches based on the successful completion of required courses and examinations (Boritz & Carnaghan, 2003). The motivation for transitioning from the more traditional education models to competency-based in accounting can be linked to the change from rules based to principles based accounting standards (Borgonovo et al., 2019).

Foundational work on the concept of competence has determined that formal testing alone is not a true measure of one's competence (Glaesser, 2019; Messick, 1984). With parity to the international accounting landscape, the International Accounting Education Standards Board (IAESB) described the overall objective of accounting education as developing competent professional accountants (IAESB, 2014). At the initial designation stage, the IAESB (2011: p. 5) "recognizes that candidates need to demonstrate their professional competence, particularly regarding the integration of different areas of knowledge and skills and their ability to apply this to real-world situations." The IAESB recognizes that the development and maintenance of competence take place throughout the careers of accountants and that accountants are expected to change and expand the scope of their competence, develop their expertise, and generally improve their capabilities.

A competency framework, as a high-level description of the skills and knowledge that a professional should possess (Barac, 2009), and education grounded in competency, focuses on

developing competence rather than just knowledge (Borgonovo et al., 2019). Competency based training focuses on the development and demonstration of desired skills and outcomes at pre-determined levels of proficiency (Borgonovo et al., 2019). A competency-based approach to professional qualification specifies expectations in terms of outcomes or of an individual's accomplishments, rather than in terms of an individual's knowledge or capabilities (Boritz & Carnaghan, 2003).

CMAs were the first to adopt competency-based education in 1996; CGAs followed in 1999, and then CAs in 2001 (Boritz & Carnaghan, 2003). Boritz & Carnaghan (2003) reasoned that introducing a competency-based approach removes the need for students to attend a specified training program. Ultimately, the revision lead to greater flexibility in the options for completion of the professional education program, as the awarding of competencies is based on outcomes rather than on a study program. Competencies are the best indicator of future professional performance (Boritz & Carnaghan, 2003).

A national accounting professional body is responsible for the development of uniform standards of practice and the strategic development of the profession in Canada (Greenwood et al., 2002). Following the amalgamation of the three legacy accounting professions in the 2010s, CPA Canada has developed the PEP and its required prerequisite course content on a national level. This content is then delivered regionally by schools established by the provincial bodies. The majority of prerequisite course content is delivered by undergraduate programs in post-secondary education. The provincial accounting bodies are responsible for licensing, certification, and delivery of the professional education program, as well as for discipline of members (Greenwood et al., 2002). Given this division of duties, the CM is developed on a

national basis, and the tracking of individual training accountants against the CM is monitored at a provincial level (CPA Canada, 2014; CPA Canada, n.d.-b).

The purpose of the CM 2013 version, which was released post amalgamation, was to outline the nature and level of competencies required of aspiring CPA's as they progressed through their professional training to qualification (Pimentel & Boulianne, 2021). The new CM intended to draw on the strengths of all three of the legacy accreditation programs and was designed to meet the needs of industry, government and not-for-profit, academic and public practice stakeholders (Institute of Chartered Accountants of Saskatchewan and Certified Management Accountants of Saskatchewan, 2012) The CM was largely based on the legacy CA competency map with some adjustments to incorporate more management accounting (Pimentel & Boulianne, 2021). The map was subsequently updated later in the decade, with changes primarily to add additional competencies in the areas of information technology and data analytics (CPA Canada, 2018b).

2.2.2 Definitions of Competence

Academic scholars differ in their definitions of competence. For instance, Messick (1984) has defined competence as what a person knows and can demonstrate under ideal circumstances, whereas Klemp (1977) has pointed out that the amount of knowledge in a content area is unrelated to superior performance in an occupation. Messick (1984) also noted a difference between knowledge and what can be demonstrated in a traditional work setting. Boritz & Carnaghan (2003) define performance as what can be observed under typical working circumstances and suggest that mere knowledge itself does not guarantee competent professional performance. In contrast, Ugiagbe-Green (2017: p.35) defines competence as "a functional, outcome-based characteristic," which specifically relates to the ability to perform a job. Other

scholars have observed that the existence of so many definitions of competence in the literature and various professional regulations have contributed to the difficulty in ascertaining the actual meaning of competence (Garside & Nhemachena, 2013; Vernon et al., 2019). The time span of these definitions demonstrates that the definition of competence changes slightly over time, but the researcher asserts that the overall sentiment remains the same. *Black's Law Dictionary* defines competence as "a basic or minimal ability to do something" (Garner & Black, 2009).

From an accounting perspective, Borgonovo et al. (2019) defines competency as "the ability to demonstrate the necessary technical and professional skills, values, ethics, and attitudes at sufficient levels of proficiency to fulfil the role of a professional accountant in a manner that meets the needs and expectations of employers, clients, peers and the public." This broad definition starts to bring in the concept of a professional meeting the expectations of stakeholders in determining competence. CPA Canada takes the definition of competence of competence into a more granular level in the following defined levels of proficiency (CPA Canada, 2020):

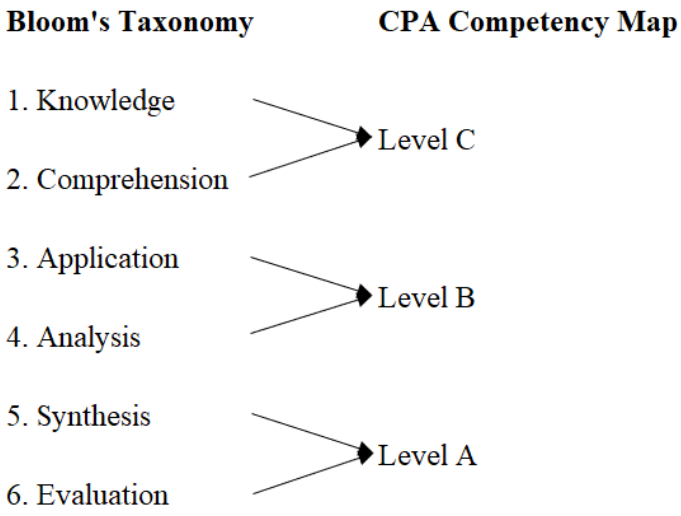
> Level C: To achieve competence at a C level, candidates must demonstrate retrieval and comprehension skills, and be able to explain, describe, and demonstrate knowledge that is low to moderate in complexity for a routine situation.
>
> Level B: This level of proficiency incorporates Level C proficiency. To achieve competence at a B level, candidates must be able to demonstrate knowledge, analyze problems, and draw logical conclusions in routine situations that have low to moderate complexity. Candidates must be able to perform a preliminary analysis of an issue, but the work will require the involvement of more senior professionals to review the analysis or provide the necessary guidance before the candidate can complete the work.

Level A: This level of proficiency incorporates Level C and Level B proficiencies. To achieve competence at an A level, candidates must be able to demonstrate knowledge, analyze problems in sufficient depth and draw conclusions in routine situations that have low to moderate complexity. In cases of non-routine and moderate complexity, candidates are expected to be able to see some, but not all, of the interrelationships. In these situations, candidates will require some guidance from a more experienced professional to complete the task. Highly complex and non-routine situations are assumed to be handled by more seasoned professionals.

Davidson & Baldwin (2005) summarized Bloom's (1956) taxonomy into six stages of learning: knowledge, comprehension, application, analysis, synthesis, and evaluation. Applying Bloom's taxonomy to the CPA Canada CM levels suggests that Level C competence is equivalent to Bloom's levels of knowledge and comprehension; Level B, to Bloom's levels of application and analysis; and Level A, to Bloom's levels of synthesis and evaluation, as demonstrated in figure 1.

Figure 1

Relation of Bloom's Taxonomy to CPA Competency Map



Undergraduate learning is at the lower levels of Bloom's taxonomy (Davidson & Baldwin, 2005; Gupta & Marshall, 2010), and the CPA professional education program brings an accountant into the higher levels of learning, building greater competence (Ramirez, 2017).

The concepts of routine and non-routine transactions were introduced in the CPA CM definitions. At Level C, demonstrating competency specific to routine transactions and translating this level of competency to Bloom's taxonomy, routine transactions are about knowledge and comprehension. At Level B, competency continues in routine transactions but starts to increase complexity from a low level to a moderate one. In Bloom's taxonomy, this moves into application and analysis. Finally, at Level A, the concept of non-routine transactions is introduced into the CPA CM at a moderate level of complexity, also introducing Bloom's concepts of synthesis and evaluation. The continuum of complexity in the CPA CM is mirrored in Bloom's taxonomy.

Critics of Bloom's taxonomy argue that it operates under a naïve theory of knowledge (Seaman, 2011) and that newer models of learning identify only two categories of knowledge, concrete and applied, rather than the six outlined in Bloom's original taxonomy (W. G. Miller et al., 1979). This different application of knowledge leading to competence would also still fit within the CPA combined education and work experience program, with concrete knowledge developed and measured through the professional education program and applied knowledge developed and measured through work experience verification.

Another seminal model of competency development was put forth by Dreyfus & Dreyfus (1986); this model broke down the levels of competence into five stages: novice, advanced beginner, competent, proficient, and expert. Later studies have shown that the Dreyfus model is still relevant in today's world for practical skills acquisition in the labour market (Ogbuanya &

Chukwuedo, 2017). Eraut (1994), however, raised concerns about measuring professional competence with such defined terms and highlighted the weakness of competency-based measurement systems: they cannot measure whether an individual is merely competent or highly competent. The competency level expected of entry-level professionals differs dramatically from that of practitioners with three, five, or twenty years of experience (Boritz & Carnaghan, 2003). CPA Canada has started to recognize this dichotomy and, in its 2018 outreach project, commented on revising the CM to explore ongoing competency development as a model rather than an hours-based tracking system as is currently in place for professional development (CPA Canada, 2018). One of the significant additions to the CM was the requirement of accountants to address GST competency. Only time will tell how this will affect the general competence level of accountants in GST.

2.2.3 Implications of Introducing the GST to the CM

One long-standing justification for leaving GST out of the CPA CM is that because VAT varies by province or territory, it could not be part of a nationally designed and delivered training curriculum, even though GST, or the similarly administered HST, is common to all Canadian provinces and territories. Before 2010, three provinces (New Brunswick, Nova Scotia, and Newfoundland and Labrador) adopted a harmonized VAT structure combining the provincial and federal components, while Ontario and British Columbia were on the cusp of bringing in harmonized tax structures (Drysdale, 2010; Ilahi, 2010). British Columbia subsequently unraveled its HST, becoming only the sixth jurisdiction in the world, and the first in the developed world, to abolish a VAT once one was in place (Bird & Smart, 2014). The fact that GST, and VAT in general, is not a static part of provincial regulatory systems supported, to some

extent, the argument of leaving GST out of a nationally developed professional education program.

To refute the argument that GST could not be taught as part of a nationally developed curriculum, one could consider the parallels to the personal income tax system. The various provinces and territories impose different personal income tax rates on residents, and some offer income tax credits that are unique in application. However, for most provinces and territories (except Quebec), the provincial personal income tax returns are filed with the federal CRA, which administers the provincial tax systems on behalf of the provinces. In parallel to the Canadian VAT landscape, six provinces - Newfoundland and Labrador, Nova Scotia, New Brunswick, Prince Edward Island, Quebec, and Ontario - currently have a harmonized sales tax, each with differing rules for the application of the provincial portion of zero-rated and exempt supplies (Bird & Smart, 2014). Of the provinces with HST, the federal government administers both the federal and provincial portion of the VAT system for all but Quebec (Bird & Smart, 2014; Day, 2010). In addition, three provinces, Manitoba, Saskatchewan, and British Columbia have a retail sales tax system, which differs from a VAT system in that it is applied only to sales of retail goods. The accounting curriculum has found a way to educate accountants in personal income taxes without requiring accountants to learn all the distinct regional differences.

2.3 The CPA Profession: Developing a Professional

2.3.1 What Makes a Professional?

The academic community agrees there is confusion over which services, and therefore service providers, should be considered professional (Thakor & Kumar, 2000). The criteria varies from scholar to scholar and there are several different approaches to defining a professional (Saks, 2016). Some scholars have focused on the trait approach by defining the

features that distinguish professions from other groups (Millerson, 1964). Gummesson (1978), for instance, identifies several distinguishing criteria for professional services: the service should be provided by qualified people, be advisory, focus on problem-solving, and involve a professional identity, the service should be an assignment from the buyer to the seller, and the professional should be independent of supplies of other services of goods. Thakor and Kumar (2000) note the consensus among sociologists that doctors, lawyers, and clergy should be considered professionals, with differing opinions amongst the academic community about all other occupations, due to the subjective criteria on determining what constitutes a profession (Barber, 1963; Evan & Levin, 1966; Perrucci & Gerstl, 1969; Sussman, 1966). More recent scholars have instead focused on a functionalism approach, based on the notion that a professional service provider's professional status is often dependent on factors such as the quality and scope of services provided, their expertise, and the extent to which the services they provide are crucial, with no definitive definition of a professional (Parmar, 2018).

Others are less prescriptive on the nature of the profession and instead look at the functions the profession performs or how it is governed. Hill and Neeley (1988) characterize the decision process to determine whether the criteria for professional services are being met as one in which the client is significantly dependent on the provider to define the problem and advise on the problem. Congram (1991) notes that a professional must have a certification and a code of ethics, more along the lines of the neo-Weberian perspective of professions as monopolies and as a special-interest political group (Saks, 2016). Marketing specialists look at promoting the expertise required to successfully deliver professional services (Bean, 1991). Bloom (1984, p. 104) states that "most people are ignorant of professional services and often they are unsure if they have to use one". Given the vague nature of the definition of a professional, public

perception and marketing certainly play significant roles in the categorization of the service industry for professionals. From the definitions provided above, the researcher asserts that accounting would qualify as a profession, as it is a technical specialty in which clients or other stakeholders are dependent on the knowledge that is offered by the profession.

2.3.2 Organization of the Canadian Accounting Profession

Each Canadian province or territory has a professional accounting association established by provincial legislation. For example, British Columbia's governing legislation outlines the responsibilities of the provincial association to promote and maintain the knowledge, skills, and proficiency of its members and students within the accounting profession. This includes to establish the qualifications and requirements for both membership and student enrolment, as well as ensure the continuation of these statuses. The association is tasked with regulating all aspects of professional conduct, competency, and fitness for members, students, professional accounting corporations, and registered firms. It is responsible for setting and enforcing professional standards while effectively representing the interests of both members and students in the field (Bill 4: CPA Act, 2015). Other provincial and territorial governing legislations contain similar provisions regarding the scope of the provincial association's responsibilities for their member accountants. CPA Canada is not a parent organization to the legislated provincial bodies; the provincial governing bodies are members of the national organization to further mutual initiatives. CPA Canada's mission is to "enhance the influence, relevance and value of the Canadian CPA profession by (a) acting in the public interest (b) supporting our members and (c) contributing to the economic and social development" (CPA Canada, n.d.-f). Understanding the intricate network of provincial regulatory professional bodies, along with the national

organization that supports them, is essential as this paper explores the competency development of accountants and this context provides insight into the division of roles and responsibilities.

The professional accounting bodies are responsible for determining, through legislation, the enrolment and training requirements in accountancy that students must meet, the curriculum, and the standards of skill and competency that students must achieve in accounting (CPA Act, 2015). To fulfill this mandate, the legislation requires provincial bodies to establish educational programs in accountancy for students. However, CPA Canada lists educational development, specifically the CPA certification program called the CPA PEP, as one of their key areas of activity (CPA Canada, n.d.-a). In practice, while the provincial accounting bodies are responsible for the educational standards and competency development of accounting students on the path to the designation, the provincial accounting bodies have agreed to a nationally developed and regionally delivered accounting training model.

CPA Canada has harmonized the overall vision of the profession into the vision statement "the Canadian CPA is the pre-eminent, globally respected business and accounting designation." Provincial mission statements are more closely aligned with the legislative mandate; for example, CPA British Columbia lists their primary mission "to protect the public by enforcing the highest professional and ethical standards and contributing to the advancement of public policy" (CPA British Columbia, n.d.-a). This study focuses on the nuances of enforcing the highest professional and ethical standards. Given their mandated responsibility to protect the public interest, it is essential to evaluate whether provincial and national accounting associations are maintaining high professional standards in the area of indirect tax, as expected by stakeholders.

One of the reasons for the existence of the accounting professional association is to assure the public that accounting professionals possess the requisite competencies to practice their profession (Boritz & Carnaghan, 2003). Some scholars believe that professional candidates should demonstrate that they meet all mandatory competencies to be certified (Jessup, 1991); whereas others claim that explicit measurement of highly technical competencies is not warranted (Boritz & Carnaghan, 2003). Greenwood, Suddaby, & Hinings (2002) iterate the importance of regulatory agencies such as CPA professional associations, as they enable the formalization and reproduction of shared meanings and understandings, such as the competencies expected of an accountant. Regardless of the function of professional associations in the development of accounting professional competencies, the academic literature supports the argument that professional associations play an important role in setting the minimal competency expectations of a professional (Morpurgo, 2014; Ugiagbe-Green, 2017).

2.3.3 The Role of the Professional Association in Developing Competencies

In his dissertation, Morpurgo (2014) examined the extent to which postgraduate professional education programs contribute to the development of meta-competencies. Meta-competencies are a "set of cognitive, personal, and interpersonal skills, abilities, and capacities that an individual may develop and which are closely tied to the application of professional judgment, intuition and acumen" (Morpurgo, 2014, p. v). Morpurgo (2014) acknowledges that little academic research has been done to support the selection of soft skills (now called enabling competencies) by the Canadian accounting profession. His research was conducted before the amalgamation of the three Canadian accounting bodies and primarily focused on the competency development of CMAs. The study found that the legacy CMA program supplemented university-level education within the professional education program, helping cultivate the competencies

expected of accountants. The learning environment played a significant role in the development of these competencies (Morpurgo, 2014).

There is a significant risk to the public interest when accountants are certified as competent in technical areas, especially if there is a misalignment with stakeholder expectations regarding competence. A study of professional practice complaints filed with the California Board of Accountancy showed that 50% of the complaints filed were related to public accounting malpractice, which includes tax compliance issues (Black et al., 2007). A review of the publicly available British Columbia CPA Investigation Committee Determination and Recommendations for 2020 showed that 50% or 7 of 14, investigations were related to public accounting tax compliance issues (CPA British Columbia, n.d.-b). Given their responsibility for protecting the public interest, professional accounting bodies must assess the risk of having professional accountants not fully competent in technical areas when stakeholders may be expecting that competence.

2.3.4 Competency Development Pre-Qualification

An Australian empirical study of recent accounting graduates, employers, and course teaching teams provided perceptions of students' employability skills upon graduation (Naidoo et al., 2013). The study found that the skills most desired in the workforce are, in order of descending importance (emphasis added to highlight applicability to this project):

1. Critical thinking;
2. Speaking clearly and effectively;
3. *Work-related knowledge and skills;*
4. Writing clearly and effectively;
5. Working effectively with others (teamwork);

6. *Ability to solve complex real-world problems;*
7. Using computing and information technology.

Naidoo et al. (2013) observed that the ability to solve complex real-world problems as well as work-related knowledge and skills demonstrated the largest variation between graduates' assessments of skills they possessed and employers' assessments of skills they sought in new accounting graduates. Other studies of accounting professional competencies in Commonwealth countries and the United States noted the increased desire for more communication skills, and generally, work-readiness skills, imparted during the training process, and also pointed out that to meet this desire, more discussion is required between educators, employers, and students, as well as more research work on ideal course content to produce valuable workforce skills (see Appendix A). These results indicate that students are not fully developing the competencies they need to be successful in the workplace from undergraduate accounting programs. A common theme in the existing academic literature is that accounting education has been focused on soft skills development instead of evaluating technical skills expected in the workplace.

More recent studies have focused on technical competency development. Jackson et al. (2023) found that there is an observed gap between what managers and recruiters expect early career accountants to have for technology skills and what is being developed through the post-secondary and prerequisite programs. Tsiligiris & Bowyer (2021) specifically looked at modernizing skills development, including digital skills, in the fourth industrial revolution with any gap between what is developed in the post-secondary and post-qualification education processes to be bridged through lifelong approach to CPD.

2.3.5 Competency Development Post-Qualification

Basic-level commodity tax knowledge is expected of accountants in the marketplace, and if they are not learning this knowledge in their undergraduate or professional education programs, consideration should be given to how accountants are acquiring this working knowledge. It stands to reason that accountants can meet the commodity tax needs of their employers and clients through four methods:

1. Post qualification professional development seminars;
2. Referral networks to other accountants;
3. Workplace knowledge transfer;
4. Self-study.

About the first method, being a professional requires maintenance of one's professional competencies through lifelong learning and continual improvement (Boritz & Carnaghan, 2003; Mitchelmore, 2016). Accountants are required to engage in ongoing professional development, such as formal CPD courses, as a condition of maintaining their designation. Professional development offers an opportunity to interact with others in the profession, and it can be argued that in-person professional development is a nexus point from which networks of weak ties can be built (Granovetter, 1973). Attendees at professional development seminars return to the organizations in which they represent and disseminate their knowledge, either formally by training colleagues or subordinates, or informally through interactions in which their new technical skills assist in issue identification.

Second, one function of professional associations, such as the provincial and national accounting bodies, is to provide an opportunity for networking with other professionals. The extent to which professionals can mine their networks to produce benefits is a phenomenon

called social capital. Social capital is built from a professional's personal circle and encompasses all the available resources in their network (Coleman, 1988; Crane & Hartwell, 2019). Teaching or attending professional development seminars can help professionals grow their network, which often translates into a referral network. In a study of Dutch managers, Boxman et al. (1991) concluded that to the extent people are equipped with social capital, they will use it. If accountants have a gap in their GST competence and are unable to meet the needs of clients or employers, they may instead harness their social capital and rely on referral networks to find indirect tax specialists that possess the technical knowledge required.

Third, the profession has formalized workplace knowledge transfer on the path to becoming an accountant. Prospective designates must obtain thirty months of work experience certified by a supervisor and the profession (CPA Canada, 2014). Mentoring has been defined as a developmental relationship in which a less experienced organization member receives help and guidance from a more experienced member whose intent is to improve the career growth of the junior member (Seibert et al., 2001; Swanson et al., 2020). The CPA profession defines a mentor as an experienced accountant who guides the development of the training accountant's competency, professional values, ethics, and attitudes (CPA Canada, n.d.-c). In the accounting profession, a mentor relationship between experienced CPAs, who have obtained a wide breadth of applied knowledge outside of the core competencies and training, and new accountants is a key component in broadening knowledge related to a technical specialty such as commodity taxes. In addition to improving the application of knowledge, a strong mentor from within the profession can also improve competence. In a study of health professionals, O'Reilly (1982) found that workers who have been on the job longer will be less likely to rely on colleagues for information, or search external sources such as technical journals than to rely on their existing

expertise. Translating this to the GST training problem, a workplace transfer of both technical knowledge and application skills of technical content not covered in the undergraduate or professional education program is critical. Given the historical CMs, a competence gap may exist in certain accountants that were not fortunate to have workplace transfer of technical knowledge in GST during their work experience period. Morpurgo (2014) reinforced the possibility for a gap in his findings that learning environments significantly affect the development of competencies (Plant et al., 2019), and that accountants trained in working environments with less tax exposure may therefore have a larger knowledge gap related to GST competency than those with greater exposure.

The fourth method of acquiring the GST competence required by stakeholders is self-study. There is little research in this area to determine whether accountants are completing self-study on GST technical knowledge, and at what stage of their careers, if at all, they attempt to do so. It is anticipated that following the articling period, new accountants with less than five years of working experience are the largest group of professionals engaging in self-study on this technical skill set to meet the needs of stakeholders, but there is no empirical evidence to support this assumption.

2.4 Theoretical Background

2.4.1 Stakeholder Expectation-Performance Gap

The thirty-year gap in accountants' education between 1991 and current recognition of the need for competency in GST is likely to have resulted in an expectation-performance gap in this technical competency. Building on a model of an expectation-performance gap between society's expectations of auditors and auditors' performance as perceived by society (Porter, 1993), Bui & Porter (2010) use the term *expectation-performance gap* to characterize the

limitations of an accountant's training regime. Their model segregates three components of this expectation-performance gap into an expectation gap, a constraints gap, and a performance gap, and defines the expectation-performance gap as the difference between competencies desired by employers and the actual competencies demonstrated by graduates (Abayadeera & Watty, 2014; Bui & Porter, 2010). This model identifies the limitations of educators in providing students with required competencies as contributing factors to the expectation-performance gap. Considering the contextual differences between Bui & Porter's (2010) theoretical framework and the proposed expectation-performance gap in Canadian GST competence in accountants, the components of the expectation-performance gap (see Figure 2) can be outlined as follows:

Expectation gap: The difference between stakeholders' (employers and clients) expectations regarding GST competence and the actual competence developed through the professional education program.

Constraints gap: Constraints within the professional education program to cover detailed technical skills.

Performance gap: The ability of newly designed accountants to translate competencies developed in the professional education program into workplace performance.

Figure 2

Structure of the GST Competence Expectation-Performance Gap

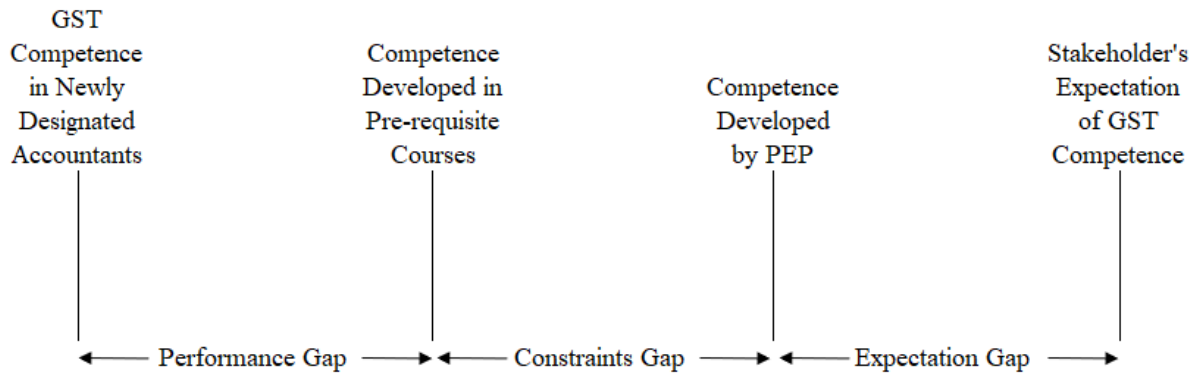


Figure 2 highlights three potential gaps between competency in accountants and the expectations of stakeholders in GST competence. Each gap represents a distinct and separate period in a training accountant's path from prerequisite courses to competence. This project examines the gap between the competence developed in the PEP and the expectations of accountants.

2.5 Research Questions

The lack of known academic literature on the selection of accounting competencies related to any form of taxation, including GST, demonstrates a significant gap in understanding the needs of stakeholders in an objective and demonstratable manner. Scholars in Canada and elsewhere have studied accounting competencies in other technical areas, such as financial accounting topics (Uwizeyemungu et al., 2020), as well as soft skills such as communication (Dolce et al., 2020; Kavanagh & Drennan, 2008; Riley & Simons, 2016; Webb & Chaffer, 2016) and ethics (Bobek et al., 2017; Cooper & Downer, 2012; Liu et al., 2018); however, indirect taxes are notably absent from the academic literature.

The lack of research on GST is conspicuous by its absenfce, especially considering the annual financial impact of GST on the Canadian economy (Government of Canada, 2019) and the role of the profession in tax compliance. In addition, the dearth of literature in this domain is intriguing in comparison to the previously discussed research in other competency areas, which leads to questions about the desired mix of technical competencies in taxation. For example, are stakeholders expecting more of a focus on GST in academic and educational programs, given the relevance of GST in the Canadian business landscape?

Other accounting competencies are more universally applicable and largely driven by the IFAC requirements for national professional designation accounting programs to be recognized

in reciprocal membership agreements (IFAC, 2001). The international influence on Canadian professional qualifications highlights the need for research to develop a uniquely Canadian framework for academic scholarship on indirect taxation. Among these, the GST is particularly significant for the broader Canadian business community. The examination of the experiences of accountants in meeting the needs of stakeholders will help fill that void. The following section lays out four research questions that the quantitative study will seek to address.

2.5.1 Research Question 1

With the changes in the landscape of the Canadian accounting profession brought on by the amalgamation of the three legacy accounting bodies (Richardson, 2017), the amalgamated profession now has a broader base of industry employers to service (Mitchelmore, 2016). The literature review above indicates that accountants are trained only lightly in GST competencies, and that, given the broad range of competencies expected of accountants, they may be required to have GST competence above the level they are achieving through post-secondary and PEP study. Additional research is required to quantify the competence of accountants who have recently completed the professional education program and to determine if this is different from employers' expectations. To further examine the expectations of employers and the GST competence of new accountants, this study seeks to answer the following research questions:

RQ1: Do newly trained CPAs perceive an expectation-performance gap related to GST competence?

2.5.2 Research Question 2

A second research question explores any perceived expectation-performance gap across different employment groups:

RQ2: Do newly trained CPA accountants who work for 'big four' or 'mid four' firms have less of a perceived expectation-performance gap than accountants who work for other employer groups?

Common career paths in accounting firms include auditing and taxation, while in non-accounting firm careers, also called industry, the individual can choose between corporate, management, or public-sector accounting. Liu, Robinson, & Xu (2018) found that a high proportion of graduating undergraduate students are interested in working for public accounting firms because they have an interest in the areas of auditing or taxation. They also noted the role of other perceived benefits in the selection of an employer, such as exposure to different industries and their related business networks. Pre-amalgamation, a study of Canadian CAs demonstrated that accountants who are more committed to their profession migrate to public practice (Suddaby et al., 2009). Previous scholars have determined that professional commitment was measured as the relative strength of identification with, and involvement in one's profession (Morrow & Wirth, 1989). Translating those results, one can conceivably deduce that those who migrated to industry settings are less committed to the practice of public accounting than those who did not (Suddaby et al., 2009).

Public accounting firms are divided into three subcommunities, each with its distinct characteristics. The first sub-community consists of the 'big four' accounting firms, KPMG, PwC, Deloitte, and Ernst and Young, which are primarily international in scope and have a large, complex client focus. The second sub-community of public accounting firms provides national coverage and is linked to international firms. The third sub-community consists of regional and local accounting firms primarily serving small and medium-sized clients (Greenwood et al., 2002). Each sub-community of accounting firms interacts with the profession differently.

Members of large firms are the least likely to participate in the training and post-certification professional development offered by the institutes (Greenwood et al., 2002), presumably because these firms are better resourced to offer such training in-house. Following this logic, smaller firms rely more on association professional development to maintain and improve their technical knowledge.

In New Zealand, Bui & Porter (2010) found that small and medium-sized firms expect accounting graduates to become competent and undertake complicated tasks more quickly than larger firms do. They also found that medium and small firms expect accounting graduates to possess a wide range of technical accounting knowledge, and consider skills such as bookkeeping essential. The same study found that large firms prefer that graduates acquire this knowledge and these skills during their post-education training period within the firms rather than at university. Differences were also noted in preference of business and general knowledge in addition to accounting knowledge.

Motivations for undergraduate accounting students to pursue careers with one of the 'big four firms' include social pressure, perceived prestige or superior training, career development opportunities, and superior ethical environments for training (Bobek et al., 2017; Liu et al., 2018). In an academic study of accountants' decisions to seek careers with the 'big four' accounting firms, Bagley et al. (2012) found that accounting students rarely identified training and skill set development as a motivation for employer selection. No similar studies have been found identifying motivations of graduating accounting students to work in industry, but it stands to reason that factors other than those drive accountants into professional practice.

It is widely acknowledged that the larger firms are particularly influential within the profession (Richardson, 2017). In a study of the post-amalgamation composition of the

provincial and national professional associations, Richardson (2017) found that leaders with a 'big four' firm affiliation composed 80% of the legacy CA representatives in the newly amalgamated leadership boards. Based on the delineation of duties between the national and provincial bodies described earlier, this bias towards the 'big four' means that representatives from the 'big four' had a disproportionate impact on the development of the revised CM.

Earlier in the literature review, motivations for why 'big four' firms might be interested in less of a focus on GST in the competency map than smaller firms was explored. Causal reasons such as strong segregation of specialties within the firms and in-house training programs that could cover any training gaps emerged. The following hypothesis, which is stated in an alternative form, is based upon the previously discussed 'big four' influence on the competency map.

H1: Accountants who work for 'big four' or 'mid-four' firms have less of an expectation-performance gap than accountants who work for other employer groups.

2.5.3 Research Questions 3 and 4

Building on RQ1 and RQ2, secondary research questions evolve to determine how accountants are closing any expectation-performance gaps to meet the needs of stakeholders. Rule 203 of the Code of Professional Conduct for CPAs states that "a member shall sustain professional competence by keeping informed of, and complying with, developments in professional standards in all functions in which the member provides professional services or is relied upon because of the member's calling" (CPA British Columbia, 2020). CPD is the method accountants undertake to ensure they are staying current and competent with professional standards. RQ3 and RQ4 explore whether accountants are meeting their professional requirements for currency in the taxation competencies:

RQ3: Is there a relationship between ongoing CPD and closing the expectation gap?

Finally, in the recently revised competency map, accounting candidates need to reach a higher level of competence through analysis and advice on income tax matters (CPA Canada, 2020). However, in terms of day-to-day transactions, GST has more of an impact than income taxes in terms of frequency. GST has historically been considered more of a specialty developed post-qualification, whereas income taxes are part of the foundational competencies for all accountants. The final research question is formed based on a predisposition among accountants to prioritize CPD in income tax over that in excise tax:

RQ4: Are accountants engaged in more CPD as it relates to the *Income Tax Act* than the *Excise Tax Act?*

2.6 Conclusion

The preceding literature review demonstrated a relative lack of academic study related to accountant taxation competencies, specifically in GST. Research questions that aim to advance academic knowledge in this area were developed by outlining a framework of potential expectation-performance gaps between stakeholders' expectations of accountants' GST competence and the competencies accountants acquire during the formal accounting education program. The following chapter will examine the specific research context and outline the methodology that will be used to respond to these research questions.

Chapter 3: Research Context and Methodology

Chapter 2 provided a review of the literature on accountants and their competency development in GST and explored an expectation gap among stakeholders in GST competency. This chapter introduces the detailed framework used to investigate the aforementioned research questions as well as the hypothesis. The following section lays out the framework for the collection and analysis of primary data to respond to the research questions with a cross-sectional research study (Wilson, 2014). Collection, cleaning, and analysis of the data are examined. The chapter closes with a discussion of the validity and reliability of this research and the value it can bring to the continuing academic dialogue on accounting competency development.

3.1 Study Setting

This project involved surveying a sample of accountants defined for this study as qualifying for a CPA designation by passing the common final examination (CFE) within the past five years. Information was gathered to evaluate the accountants' self-assessment of the level of GST competence and how they obtained that GST competence. The accountants self-assessed the competencies they possess or have developed to meet their employer's expectations, based on how often these competencies are required in their job.

3.2 Research Design

Paradigms guide researchers to experience and think about the world (Kankam, 2019) and provide ways to look for explanations (Babbie, 2014, p.31). Paradigms clearly define the purpose, motivation, and desired research outcomes of studies (Mackenzie & Knipe, 2006). Selecting a paradigm for a study establishes the basis on which research designs and methodologies are adopted for that study (Easterby-Smith, Thorpe, & Lowe, 2002, p. 33).

3.3 Population and Sample Size

The population of newly qualified accountants was determined by averaging the number of candidates who passed the 2018 and 2020 CFEs. The number of candidates that passed the 2019 CFE is not used in determining the population, given the significant issues in administering that examination.[2] There were 6,163 successful candidates on the 2018 CFE,[3] and 6,371 successful candidates on the 2020 CFE,[4] for an average of 6,267 successful candidates per year. Given that the CFE was administered once per year in those years (CPA Canada, 2018, 2020a), the estimated population of accountants who qualified by writing the CFE in the past five years is 31,335.

For this study, a confidence interval of 95% and a margin of error of 5% are desired. Using the following sample size formula (Rumsey, 2019, p. 73):

$$n\left\lceil\left(\frac{Z * \sigma}{MOE}\right)^2\right\rceil$$

Where:

n – sample size;

MOE – desired margin of error;

σ – population standard deviation; and,

Z – represents the z* value for the selected confidence level.

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[2] Ellis, C. (2020, January 7). CPA Canada releases September 2019 CFE results. *Canadian Accountant*. http://www.canadian-accountant.com/content/business/cpa-canada-releases-september-2019-cfe-results#:~:text=Reportedly%2C 76 per cent of,77 per cent in 2018

[3] CPA Canada. *CFE Cumulative Pass Rates*. https://www.newswire.ca/news-releases/cpa-canada-congratulates-6163-successful-cfe-writers-701636692.html#:~:text=30%2C%202018%20%2FCNW%2F%20%2D,Common%20Final%20Examination%20(CFE).

[4] CPA Canada. CFE Honour Roll. https://www.cpacanada.ca/en/become-a-cpa/cpa-certification-program-evaluation/common-final-examination-honour-roll

The population standard deviation is unknown for the study group: accountants who qualified by writing the CFE in the past five years. Running the formula above assumes two scenarios: first, that the standard deviation is .5; and second, that the standard deviation is 2. The first scenario was chosen because the survey is based on five-point Likert scale data, and if translated into interval data, in a normal distribution, it would have low standard deviation rates. The second scenario was chosen considering Chebyshev's theorem (Mahbobi & Tiemann, 2015), as 75% of the members of any population are within two standard deviations of the population.

The sample sizes from the scenarios above are (1) 385 and (2) 6,147. Using this analysis as an upper limit, consideration is given to whether a higher sample size would provide more meaningful data in reaching conclusions and interpretations from the findings. Increasing the sample size above 200 will not meaningfully increase the power level with an alpha of .05 and an expected moderate effect size (Hair Jr. et al., 2018). Therefore, the desired sample size for this project was a range of 200 to 385 survey respondents.

3.4 The Research Instrument

The survey used for this study is primarily based on a five-point Likert agree-disagree scale (Revilla et al., 2014). Likert (1932) found that scale-based survey instruments with degrees of approval should offer five points. More recent scholars have argued that comparable results are obtained from scales with more points and that the results may yield more information than the shorter five-point version (Dawes, 2008). However, Dawes also noted that there is little difference between the five- and seven-point formats. With this project's intent to group data by employment category in data analysis in mind, a five-point Likert scale is considered sufficient.

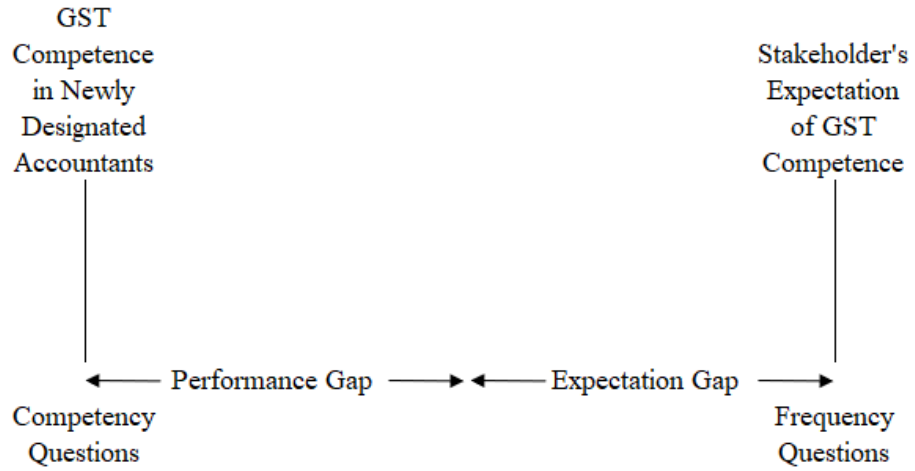
In addition to the Likert-scale questions, the survey included open-ended questions. Five open-ended questions were added near the end of the questionnaire to provide a richness of

responses not otherwise captured in closed-ended multiple-choice survey questions. These questions were not intended to respond to any specific research questions but were intended to provide further insights into accountants' post-qualification experiences. These experiences factored into recommendations and conclusions stemming from this study as a whole.

Building on the expectation-performance theory developed in Chapter 2, Figure 3 illustrates the relationship between the competency and frequency questions. Frequency of expectation for performance is used as a proxy to measure employers' expectations, as determined by research in other fields such as the medical field (Klassen et al., 2016) or the marketing field (Yi & La, 2004).

Figure 3

Competency / Frequency Questions



Respondents will measure their competency assessment using mirrored wording to the CM (CPA Canada, 2020). Questions 15 and 19 measure at competency level A; questions 7 and 11 measure at competency level B; and question 10 measures at competency level C. Language in the questions mirrors competency assessment language in the CM (CPA Canada, 2020), as outlined in table 2. Key indicator words in the CM language have been mirrored in the survey questions, indicated in bold.

Table 1

Descriptors in CM

CM Level	CM Language (CPA Canada, 2020)	Survey Question Language
Level A	Candidates must be able to demonstrate knowledge, **analyze** problems in sufficient depth, and **draw conclusions** in routine situations with low to moderate complexity	Question 15 I have the required technical skills to **identify, analyze, and make recommendations** on GST or HST planning for complex transactions such as intercompany transactions or real property
		Question 19 I am comfortable **analyzing** taxable and non-taxable supply rules and **concluding** on the appropriate treatment as it relates to GST collection requirements
Level B	Candidates must be able to **perform** a preliminary analysis of an issue but will require the involvement of more senior professionals, in low to moderate complexity situations Verbs used in a low complexity situation include, among others, **explain**.	Question 7 I am able to perform basic GST or HST compliance or administration activities
		Question 11 If required, I would be comfortable **explaining** information regarding GST or HST rules and application on **routine transactions** to other employees, clients, or supervisors

Level C	Candidates must demonstrate retrieval and comprehension skills in low to moderate complexity situations	Question 10 I have the required **retrieval and comprehension skills** to administer current GST or HST legislation compliance and filing requirements

The competency and expectation questions, while tied to distinct sections of the CM, are all proxies for overall competence or expectation of competence in GST, and therefore are aggregated to measure the expectation-performance gap. In addition to measuring the gap competency by competency (6.7.1 through 6.7.6), overall competency was developed by calculating the mean of the competency assessment questions (Q7, Q10, Q11, Q15, and Q19). Overall stakeholder competency was developed by calculating the mean of the expectation assessment questions (Q8, Q9, Q12, Q14, and Q18). The expectation-performance gap is then determined as the difference between the overall mean of the expectation and the overall mean of the competencies. Two questions - Q13, which measures expectation, and Q17, which measures competence - are not tied to any specific section of the CM and were used as validating questions as an overall proxy measure of the expectation-performance gap. A full copy of the survey used is in Appendix B.

3.4.1 Demographic Variables

Respondents were asked about employment categories to help identify any differences in competency development between training paths. The survey focused on the current employment and immediately preceding employment categories. Given the study's primary focus on the demographic variable as employment category, other demographic variables in the survey instrument were limited to geographic and basic identification (age and sex). The employment

information was set as independent variables when analyzing RQ2 to determine whether, and if so, how, employment path affected competency development and the expectation gap.

Training paths permitted in the PEP include professional practice firms and non-professional services also referred to as industry. Professional practice firms are divided into three subcommunities, each with distinct characteristics. The first sub-community consists of the 'big four' accounting firms, which are primarily international in scope and with a large, complex client focus. The second sub-community of professional practice firms provides national coverage and is linked with international firms (Greenwood et al., 2002), and is often referred to as Tier 2 firms (Gillis, 2014; Lento & Yeung, 2020). Lento and Yeung (2020) identify Baker Tilly, BDO, Crowe, and Grant Thornton as Tier 2 firms in their paper. MNP was also added to this list as revenue and employment numbers in Canada are approximately the same as the other Tier 2 firms (Van Santvoort, 2017). The third sub-community consists of regional and local accounting firms primarily serving small and medium-sized clients (Greenwood et al., 2002). Previous research has determined that members of large firms are the least likely to participate in the training and post-certification activities of the provincial professional associations (Greenwood et al., 2002), presumably because these firms are better resourced to offer such training in-house (Bagley et al., 2012) or because of corporate cultural standards (Robson & Ezzamel, 2023), which makes the 'big four' accounting firms a unique employment status group.

3.5 Data Collection Procedures

3.5.1 Participant Recruitment

The study was undertaken over six months commencing on November 12, 2023 and ending on May 7, 2024. Contact was made with potential participants through social media forums such as LinkedIn and Facebook with general invitations to participate. According to

discussions with the Chartered Professional Accountant Education Foundation of Alberta (personal communication, May 14, 2019), the CPA professional education bodies limit researchers' access to their databases of training accountants, and direct access to a sample database of current students or recent designates is not possible.

The researcher's initial posts were re-posted 12 times via contacts in the accounting and education industry and there were approximately 1,200 directly trackable views of the social media posts. Support to obtain participants was also provided by educational and accounting industry contacts who forwarded the survey invitation to known recent accounting graduates. The researcher also formed lists of CPA candidates who completed the CFE in either the May or September 2023 sittings. These lists were formed by searching the promotional materials of public accounting firms highlighting the names of their staff that passed the CFE and by sending targeted invitations via email to those candidates. In total 125 targeted emailed invitations were sent out between December 2023 and January 2024.

The recruitment posters and survey were translated into French by a translator on January 10, 2024, and an additional survey was created in Survey Monkey for French candidates. From the list of CPA candidates who completed the CFE in either the May or September 2023 sittings a listing of candidates who work in Quebec or New Brunswick were identified and they were forwarded an invitation email with a link to the survey in French. A total of 15 targeted French invitations were sent out in January 2024.

3.5.2 Ethical Considerations

Athabasca University Research Ethics Board approval was obtained on June 9, 2023 (see Appendix D) and the proposed project completion date was extended on May 14, 2024. To increase interest in participating in the survey, participants who voluntarily provided their email

address were entered into a draw to win one of five $50 Amazon gift cards. Links to the gift card awards were sent out on May 27, 2024.

Survey invitations were sent on a non-identifiable basis, with no connection between the link to the survey and the individual respondent's response. Responses to the survey were anonymous. The preface to the survey specified that the survey responses were confidential and cannot be linked to any particular invitation link that the respondent may have clicked on. Once the data was cleaned and gift certificates awarded, any email addresses to enter respondents into the draw were removed from the survey data. Survey anonymity is particularly important for this study, because the survey asked respondents about their adherence to professional requirements or competencies, and they may not want such information disclosed.

3.5.3 Data collection

Data collection in Survey Monkey began on November 12, 2023. Between November 12, 2023, and November 14, 2023, the researcher noted a very fast pace of responses and the researcher became concerned some of the responses were from an automatic survey taker, also known as a "bot". Bots are malicious software applications programmed to complete automated tasks online, such as filling out surveys to receive compensation (Storozuk et al., 2020), such as the potential to qualify for the Amazon gift card draw. Following consultation with the supervisory committee, the researcher modified the survey to include a trap question (Science Friday, 2023). On November 15, 2023, the following question was added to the survey as question #2.

This question is here to verify the respondent is a human. The correct answer to this question is D.

a) A
b) B
c) C
d) D

Respondents could not proceed in the survey if the question was not answered correctly. Immediately following the addition of the trap question the rapid pace of responses to the survey stopped and data collection continued.

3.6 Quantitative Data Analysis

The purpose of statistical analysis is to study variation to look for meaningful trends and changes. This project uses quantitative methods to analyze the ordinal data collected from the Likert-scale portions of the survey (Chyung et al., 2017). When analyzing statistical data, two primary categories of statistical tests are available, parametric and non-parametric tests (Campbell & Shantikumar, 2016). As data about the population was not available the researcher is unable to determine if the sample data is representative, or follows a normal distribution (Rugg, 2007). Parametric statistics require that the sample is a representation of the population and normally distributed (Kline, 2023). When parametric tests were run to gather preliminary data (such as the paired t-tests) the results from the non-parametric equivalent (such as the Wilcoxon Signed Rank test) (Campbell & Shantikumar, 2016) were also considered to ensure there was statistical backup if the data was not normally distributed.

3.6.1 Data Cleansing

As discussed previously, concerns were raised early in data gathering that a bot may be responding to the survey. Storozuk et al. (2020) concluded based on their experience with bot

survey data that the most effective techniques to identify and address bot data in survey research are to (1) screen email addresses, (2) screen open-ended responses and reverse-scored items, (3) do not share survey links publicly, (4) monitor time of survey completion, and (5) monitor speed of survey completion. They conclude that attention check questions, such as the question that was added to the survey following the concerns about potential bot data, are moderately effective in preventing bot data. Further research by Simone (2019) suggests that researchers flag participants with two or more infractions as potential bots.

The initial survey data consisted of 500 cases. In analyzing data to determine which responses to include in the data analytics basic response analysis such as responses outside of the defined population or responses that were blank excluded 33 responses (6.6% of respondents).

Table 2

Exclusion Criteria

Exclusion Criteria	**Response count**
Starting sample	500
CFE was written before 2018 therefore outside of the defined population	(27)
CFE is not yet written and therefore outside of the defined population	(4)
Started but no responses to any questions given	(2)
Bot data eliminations	(153)
Included responses	314

Following Storozuk et al. (2020) recommendations, candidates who provided invalid email addresses such as those ending in @aol to the survey entry question were eliminated. Duplicate email addresses were found by running a duplicate values check in Excel on the data which eliminated an additional 2 cases. An additional duplicate values check was run in Excel on the open-ended questions. Duplicate open-ended responses were then cross-referenced with the survey response time stamp and 77 cases were eliminated on the basis that they contained open-ended responses that were duplicated with time stamps in sequential order. A further data

integrity check was run between question three, asking if the respondent had completed the in-depth GST / HST or Master of Taxation program, and their response to question 7 if they were able to perform basic GST / HST compliance activities, specifically if the respondent disagreed or strongly disagreed with the ability to perform basic compliance activities. These questions were considered as a data integrity check as common sense within the accounting profession is that if you have a specialization in tax or GST / HST you should be able to complete basic activities. An additional 10 cases, where there was an incongruence with the responses and that were time-stamped data in sequential order, were found and excluded from the data. This analysis to identify bot responses eliminated a further 153 responses (30.6% of respondents). The remaining sample after cleaning up data as described above was 314 responses, which were loaded into SPSS for quantitative analysis.

3.6.2 Data Analysis RQ1

Respondents were asked a series of questions based on the GST competencies in the CPA CM (CPA Canada, 2020) sections 6.7.1 to section 6.7.6. Appendix C outlines the purpose of each question, the scale on which it is measured, and the tie to the GST competencies in the CM (CPA Canada, 2020). Each CM section has two questions: one measuring the frequency of expectation for performance using a Likert scale, and one measuring the accountant's self-assessment of competence using an agree/disagree Likert scale, as illustrated in Table 3. Of note, questions 12 and 15 combine "6.7.5 Analyzes GST implications from tax planning for shareholders and their closely held corporations" and "6.7.6 Explains GST obligations arising from other transactions" into one series of questions, given their proximity in performance.

The research question under RQ1 is answered by examining the difference between the competency assessment for the questions illustrated in Table 1. The overall expectation for

competency was determined by taking the mean Likert scores on the competency assessment questions as a proxy for performance. The overall performance was determined by taking the mean Likert scores on the expectation assessment questions. These two means were then compared using a paired sample t-test. The parametric test was further strengthened by obtaining the non-parametric equivalent Wilcoxon Signed Rank Test score (Campbell & Shantikumar, 2016). These tests were repeated using the two validating questions (Q13 and Q17). Once a general understanding of the expectation gap was obtained, the tests were repeated on the individual paired questions (see Table 3) that measure each competency in the GST section of the CM to gain a richness of information to help inform the work in RQ2 where employer group will be introduced.

Table 3

Expectation-Performance Gap Measurement Through Survey Question Design

Competency	Competency Assessment	Expectation	RQ1	RQ2
6.7.1 Discusses the GST system in Canada	Question 10	Question 8	Difference between Q8 and Q10	Results of RQ1 incorporating Q5 and Q6
6.7.2 Analyses GST obligations of a person	Question 19	Question 18	Difference between Q18 and Q19	Results of RQ1 incorporating Q5 and Q6
6.7.3 Calculates net tax for a person	Question 11	Question 14	Difference between Q14 and Q11	Results of RQ1 incorporating Q5 and Q6
6.7.4 Discusses GST compliance requirements	Question 7	Question 9	Difference between Q9 and Q7	Results of RQ1 incorporating Q5 and Q6
6.7.5 Analyzes GST implications from tax planning for shareholders and their closely-held corporations	Question 15	Question 12	Difference between Q12 and Q15	Results of RQ1 incorporating Q5 and Q6
6.7.6 Explains GST obligations arising from other transactions	Question 15	Question 12	Difference between Q12 and Q15	Results of RQ1 incorporating Q5 and Q6

3.6.3 Data Analysis RQ2

Using the mean developed under RQ1, a general understanding of if there is a statistical expectation gap within different employment groups was first developed, by competency level 6.7.1 to 6.7.6 and then with the validating questions. In line with RQ2, the employment groups were split into respondents who currently work for Big 4 or Mid-4 employers and those who do not. This information was then re-segregated into respondents who have worked for Big 4 or Mid 4 firms in their current or previous employment, and those who have not reported working for

Big 4 or Mid 4 firms. Using the paired sample t-test and Wilcoxon Ranked Signed Test, an understanding of where there are expectation-performance gaps was first obtained.

RQ2 investigates the extent of the expectation gap in the different employment groups. To measure if any expectation gap was statistically significant a cross tab to obtain a Pearson Chi-square factor was run. The test was run on the gap for each of the individual competencies, and the validating questions.

In addition, an ANOVA is estimated on the mean of the competency questions compared to the mean of the expectation questions. Holding the employment group as the independent variable, the test examined whether there was a statistically significant difference in competency and expectation across the groups. H1 is supported if there is a statistically significant difference between the stakeholders' expectation of GST competence and the GST competence in accountants, whereby the expectation is larger than the competence

3.6.4 Data Analysis RQ3

The analysis for RQ3 looked at how accountants are closing any expectation-performance gap through ongoing professional development. Question 16 asked about various categories of professional development that can be undertaken. The five response options were then combined into three general types of professional development: (1) formal professional development, (2) self-study, and (3) someone to talk to (colleague, supervisor or professional expert). Using a cross-tab and Pearson Chi-Squared test, the gap, determined by the validating questions 13 / 17, was then analyzed across the types of professional development to see if there were any statistically significant differences in the type of professional development engaged in. A separate test was then run using an ANOVA with difference in means of the competency

questions and expectation questions as the dependent variables. The independent variable was how accountants are closing the expectation-performance gap (Q16).

3.6.5 Data Analysis RQ4

RQ4 explores the nature of professional development activities in the taxation competencies overall. Respondents ranked the amount of CPD they have undertaken in GST, personal income tax and corporate income tax. Using the paired sample t-test and Wilcoxon Ranked Signed Test, the data was analyzed to determine if there were statistically significant differences between the amount of CPD undertaken in GST compared to the average income tax CPD, and individually against personal income tax CPD and corporate income tax CPD, as laid out in Table 4.

Table 4

Continuing Professional Development Analysis Through Survey Design

Hypotheses	Questions	Data Analysis
RQ4: Accountants have been engaged in more CPD as it relates to the *Income Tax Act* than the *Excise Tax Act*	21, 24, 25	Q21 compared to the mean of Q24 and Q25.

3.7 Qualitative Analysis

The study is primarily based on a quantitative research methodology. The qualitative data comes from the open-ended questions (Q22, Q23, Q27, Q28 and Q28) and was intended to enrich findings from the quantitative analysis. Qualitative data gathering is to gain further insights into the respondents' experiences obtaining, or not obtaining, GST competence post-qualification. These experiences may have been obtained through continuing professional development, and these questions will allow respondents to reflect on their experience obtaining

GST competence. Questions have also been added to allow these accountants to reflect on their opinions on what competence in GST means for accountants.

Thematic analysis is a method for identifying, analyzing and reporting patterns (themes) within the data (Braun & Clark, 2006). The responses to the open-ended questions were analyzed following Braun & Clark's (2006) six-phase guide to thematic analysis to identify and report patterns within the responses to these qualitative questions. Using Robinson (2022) structured tabular approach in Excel recurrent patterns to help improve understanding of the qualitative data were sought out. The qualitative data from the surveys was imported into Excel with each question on a different worksheet and employment group (current and previous) was kept with each question. On first pass of reading the data, possible codes or other initial analytical ideas were identified. For questions with limited data the analysis was summarized here. For questions with more data, such as Q29, the data was then collated into a shorter list of themes and organized into a word cloud of the data, which allowed me to refine the final themes. Once the final themes are identified, they were defined and named.

3.8 Validity

Validity is concerned with how well the concept is defined by the measures (Hair Jr. et al., 2018, p. 3). Issues of validity can be categorized into internal validity, specifically content and construct, and external validity (Wilson, 2014, p. 133). Quantitative research embodies several inherent issues associated with the measurement of relationships between variables (Morpurgo, 2014).

Qualitative validity is defined as how accurately the account represents participants' realities of social phenomena (Creswell & Miller, 2000). Triangulation, by using both quantitative and qualitative methods to reach conclusions, is considered a source of validity

(Carter et al., 2014). While using multiple-coders is considered to increase validity in qualitative research (Castleberry & Nolen, 2018), in this study as the qualitative data received was quite brief this reduced the risk of validity. For Q29, where the most robust responses were received, an automatically generated word-cloud served as another source of coding to determine themes and improve validity.

3.8.1 Construct Validity

To generate accurate and reliable data, researchers must be sure that their survey items measure what the researchers intended to measure (Chyung et al., 2017). Pairing the expectation measurement items to the CM GST competencies strengthens the survey's validity by tying the items to be measured to an existing scale of competency. Pairing the language in the survey with the CM language provides validity to the question structure. To examine construct validity in an absolute sense, it is necessary to measure one construct with multiple methods (Schimmack, 2010). A series of paired questions - question 13, measuring expectation, and question 17, measuring competency – that are not specifically tied to any particular section of the competency map were asked to serve as overall validating questions, to help determine whether there is an expectation-performance gap.

3.8.2 Content Validity

As the survey was translated into French to make it possible to provide samples from across all Canadian provinces, there was a risk that the content validity could be compromised. Using a specialist translation firm to perform the translation helped reduce the risk. As no responses to the French version of the survey were received, this risk was negated between the design and execution of the study.

3.8.3 External Validity

External validity is the extent to which the findings from a study can be generalized to other cases or settings (Wilson, 2014, p. 134). Making an effort to obtain a representative sample across the various provincial jurisdictions reduced the risk of external validity issues. However, the risk of external validity concerns remains when translating the results of this study into greater recommendations on CPD for the accounting profession, as the sample was restricted to accountants.

3.8.4 Reliability

Reliability concerns the extent to which a measurement of a phenomenon provides stable and consistent results (Carmines & Zeller, 1979), and when repeated would result in the same results under constant conditions (Wilson, 2014, p, 129). Using a Likert scale to measure subjective constructs related to competence and stakeholder expectations increases the reliability of those constructs. If the survey were to be repeated with the same participants in a similar time frame, the same results could be expected; therefore, a high level of reliability can reasonably be expected.

The most widely used objective measure of reliability, Cronbach's alpha (Tavakol & Dennick, 2011), was run on the survey results before the in-depth statistical analysis. As this study involves multiple questions measuring competency and expectation (see Table 1), a high alpha provided confidence in the interrelatedness of the test items. An alpha was conducted on responses to the competency questions and responses to the expectation questions, with an expected value of at least 0.7 (George & Mallery, 2019).

3.8.5 Self-response Bias

The tendency for people to present a favourable image of themselves on surveys is called socially desirable responding (van de Mortel, 2008). The participants may believe the information they report, called self-deception, or may "fake good" to conform to socially acceptable values (King & Bruner, 2000). A belief tending towards core professional values within the accounting profession may lead to incidences of socially desirable responses. Clear communication on the anonymity of the survey results, the intended outcomes of the survey to come to recommendations to improve the competency development of accountants, and the importance of responding honestly were done in both the invitation and the preface to the survey, to help combat self-response bias.

3.9 Summary

The purpose of Chapter 3 was to describe the research methodology for this study. This study was carefully planned and designed to obtain data that can be appropriately analyzed while upholding sound statistical methods to respond to the four identified research questions. A detailed outline of the research design was provided including methods for data collection and analysis. Analysis of the results of this study will be presented and interpreted in subsequent chapters.

Chapter 4: Results

The purpose of this study is to investigate if there is an expectation-performance gap in the GST competencies of newly trained accountants. In this chapter, the data collected is presented and the findings based on the data are provided. First, the descriptive statistics on the data are presented. The remainder of the chapter is arranged according to the tests that were performed on each research question and the results.

IBM SPSS Statistics 29 was used for all statistical analysis. The probability of making a Type I error (e.g., finding significance in the findings when there is none) was set at a maximum of .05 alpha for significance.

4.1 Preliminary Data Review

The responses were represented across the demographic variables as summarized in Table 5. Data on the population of accountants is not available from CPA Canada (personal communication, May 14, 2019) so comparisons to the population cannot be made.

Table 5

Demographics

Characteristic	*n*	% of n
Sex		
Female	125	41%
Male	175	57%
Intersex	5	2%
Age Range		
20 – 24	21	7%
25 – 29	95	31%
30 – 39	128	41%
40 – 49	51	17%
50 – 64	13	4%
Over 65	1	0%
Year Passed CFE		
2019	55	18%
2020	88	28%
2021	83	26%
2022	56	18%
2023	32	10%
Province of Residence		
British Columbia	47	15%
Alberta	30	10%
Saskatchewan	36	12%
Manitoba	29	9%
Ontario	48	16%
Quebec	31	10%
New Brunswick	37	12%
Prince Edward Island	22	7%
Nova Scotia	12	4%
Newfoundland	11	4%
The Territories	6	2%

The responses options in the survey instrument were primarily based on a five-point Likert scale. Cronbach's alpha is the most common measure of internal consistency, or reliability. An initial Cronbach's alpha was run on the expectation questions and then again on the competency assessment questions to ensure these questions all reliably measure the same

latent variable. The resulting Cronbach's alpha was .743 for the expectation questions and .751 for the competency questions. When interpreting the results of the analysis, the following rule of George & Mallery (2019) was followed whereby > 0.8 is a good level of reliability and > .7 is an acceptable level of reliability. Therefore, it can be concluded that the scale measures what it is intended to and the results of further statistical analysis can be relied on in reaching conclusions about the data.

4.2 Data Analysis RQ1

4.2.1 Quantitative Data Analysis RQ1

RQ1 explores if there is an overall expectation-performance gap related to GST competency in newly trained accountants. To test this RQ two data points were examined. Q13 and Q17 were general validating questions in the survey to measure expectation and competency, respectively. The mean of all responses was taken (n=313) as a proxy for overall expectation and competency and a p-value and Wilcoxon Signed Rank Rest value were used to determine if any difference observed between the expectation and competency was statistically significant. The test was then repeated by comparing the mean of the expectation questions (competency 6.7.1 through 6.7.6) to the mean of all of the competency questions. Any difference observed was then tested for statistical significance with a p-value and Wilcoxon Signed Rank Test. The results of these tests are demonstrated in Table 6.

Table 6

RQ1 Results

		Mean			*p-value*	
	N	Expectation	Competency	Difference	Paired t-test	Wilcoxon Signed Rank Test
Panel A - Research Question 1 by Aggregate						
Q13 relative to Q17	313	3.64	3.88	-0.24	<.001	<.001
Avg expectation relative to avg competency	314	3.58	3.85	-0.27	<.001	<.001
Panel B - Research Question 1 by Competency Area						
Q8 relative to Q10	312	3.68	3.75	-0.07	0.243	0.161
Q18 relative to Q19	312	3.47	3.96	-0.49	<.001	<.001
Q14 relative to Q11	302	3.66	3.97	-0.31	<.001	<.001
Q9 relative to Q7	308	3.55	3.86	-0.31	<.001	<.001
Q12 relative to Q15	310	3.84	3.76	0.08	0.261	0.304

Note: Expectation questions correspond to the first question number presented and competency questions correspond to the second question numbers presented.

Overall, the observed means fall in the range of sometimes to frequently on the Likert scale for the expectation questions and in the range of neutral to agree on the competency questions. In Table 6 when the mean of the expectation question exceeds the mean of the competency question, so a negative number in the difference column, this would indicate an expectation-performance gap. The analysis in Panel A shows us that in both instances the mean of the competency assessment questions is higher than the mean of the expectation assessment questions and by a statistically significant amount. This analysis, in relation to RQ1, would disprove that newly trained CPAs perceive an expectation-performance gap related to GST competence.

The data was then further explored in Panel B to see if there is a perceived expectation-performance gap on any of the individual GST competencies laid out in the CM (6.7.1 to 6.7.6).

Again, in all instances in the individual CM competencies, the mean of the competency questions is higher than the mean of the expectation assessment questions which supports the results noted when aggregating the data. For several of the competencies, 6.7.2, 6.7.3 and 6.7.4, this difference is statistically significant as noted both by the paired t-test p-value score and the Wilcoxon Signed Rank Test p-value score. This again supports that, in relation to RQ1, newly trained CPAs do not perceive an expectation-performance gap related to GST competence. Therefore, the hypothesis that CPAs perceive an expectation-performance gap related to GST competence was not supported.

4.2.2 Qualitative Analysis RQ1

Questions 28 in the survey explored if respondents think accountants need to know about GST. The phrasing of the question as a closed-ended question led many respondents to answer with a yes or no definitive answer, although the positioning of the question in the survey instrument did allow respondents to expand in the input box if they so chose. The responses were analyzed by theme for responses that definitively said (1) yes accountants need to know about GST (2) no, accountants do not need to know about GST and (3) maybe or sometimes.

Of the 167 responses to this open-ended question, there was very little richness of data provided, with almost no respondents choosing to elaborate on their responses. Overwhelmingly, 95% of respondents agreed that accountants need to know about GST. The remaining 5% of respondents were split between no and maybe.

The data was then further analyzed to determine if there were any trends in these responses by employment group. Responses were categorized into responses by accountants currently working in professional practice and responses from accountants currently working in

industry. Again, overwhelmingly respondents agreed that yes accountants need to know about GST with no significant differences noted here between category of employment.

Further data in response of RQ1 was then gathered with an open-ended question asking respondents to discuss what it means for accountants to be competent in GST. A total of 84 responses were received. Responses varied in terminology, but all generally described a manner of competency. The researcher assigned three themes to the responses, corresponding with the terminology for competency levels in the CPA CM. As a reminder of their definitions (CPA Canada, 2020b):

> Level C: Demonstrate retrieval and comprehension skills and be able to explain, describe, and demonstrate knowledge that is low to moderate in complexity for a routine situation.
>
> Level B: Incorporates Level C proficiency and demonstrate knowledge, analyze problems, and draw logical conclusions in routine situations that have low to moderate complexity. Perform a preliminary analysis of an issue, but the work will require the involvement of more senior professionals to review the analysis or provide the necessary guidance before work is completed.
>
> Level A: Incorporates Level C and Level B proficiencies and demonstrate knowledge, analyze problems in sufficient depth and draw conclusions in routine situations that have low to moderate complexity. In cases of non-routine and moderate complexity, see some, but not all, of the interrelationships. Require some guidance from a more experienced professional and still excludes highly complex and non-routine situations.

Table 7

RQ1 Thematic Analysis by Competency Level

Competency Level	*n*	%
A	26	31%
B	17	20%
C	41	49%

The results show that accountants think that accountants need competency in GST beyond what they are developing through the qualification process, which focuses on level C with some level B competency depending on electives.

A further qualitative analysis was run on this data to determine overall themes regarding the qualitative descriptions of competency. The complete responses were entered into a word cloud generation program to count frequency of times specific words were used in the overall 84 responses. Instances where words were only used once were removed to allow clear themes to emerge. The resulting word cloud is displayed in Figure 4

Figure 4

Word Cloud Accounting Competency in GST

The largest themes emerging based on the word cloud are understand, familiar and capable. Translating these themes back to the interrelation between Bloom's taxonomy terminology and the CPA CM (Figure 1) we see that responding accountants feel that accountants should have a level C competency as the largest theme, with a level B as the next most common theme.

4.3 Data Analysis RQ2

RQ2 introduces the idea that employment training paths may impact GST competency development. Respondents were asked about where they currently work as well as where they worked before their current employment. Earlier, theory was reviewed that accountants who work for the "big four" or "mid four" firms have similar training paths compared to those who work for small and regional firms or who train in a non-professional practice environment. Analysis for RQ2 was focused on looking at the expectation-performance gap while considering employment with an overall hypothesis (H1) that accountants who work for "big four" or "mid four" firms have less of an expectation-performance gap than accountants who work for other employer groups.

4.3.1 Quantitative Analysis RQ2

Before directly testing RQ2, the testing performed under RQ1 was expanded to look at a statistical measurement of the expectation-performance gap by employment group. Employment groups considered were:

- Panel A: Accountants who currently work for big-four and mid-four firms
- Panel B: Accountants who currently work for small or regional firms or industry
- Panel C: Accountants who have either current or previous experience working for big four or mid-four firms

- Panel D: Accountants who have no previous experience working for big four or mid-four firms

The results of these additional paired t-tests, both using the validating questions and by CM competency are displayed in Table 8.

Table 8

RQ2 Paired Sample Tests by Employment Groups

		Mean			*p-value*	
	n	Expectation	Competency	Difference	Paired t-test	Wilcoxon Signed Rank Test
Panel A - RQ2 Accountants who work for big four or mid four firms						
Q13 relative to Q17	161	3.59	3.81	-0.22	0.016	0.014
Q8 relative to Q10	161	3.70	3.68	0.02	0.893	0.918
Q18 relative to Q19	161	3.40	3.96	-0.56	<.001	<.001
Q14 relative to Q11	157	3.55	3.93	-0.38	<.001	<.001
Q9 relative to Q7	158	3.47	3.86	-0.39	<.001	<.001
Q12 relative to Q15	160	3.67	3.74	-0.07	0.409	0.399
Panel B - RQ2 Accountants who work for small or regional firms or industry						
Q13 relative to Q17	152	3.70	3.95	-0.25	0.003	0.004
Q8 relative to Q10	151	3.66	3.82	-0.16	0.054	0.051
Q18 relative to Q19	151	3.55	3.95	-0.40	<.001	<.001
Q14 relative to Q11	145	3.78	4.01	-0.23	0.012	0.011
Q9 relative to Q7	150	3.62	3.86	-0.24	0.017	0.018
Q12 relative to Q15	**150**	**4.01**	**3.78**	**0.23**	**0.014**	**0.017**
Panel C - RQ2 Accountants who have experience working for big four or mid four firms						
Q13 relative to Q17	199	3.65	3.85	-0.20	0.013	0.010
Q8 relative to Q10	198	3.65	3.71	-0.06	0.504	0.375
Q18 relative to Q19	199	3.47	3.97	-0.50	<.001	<.001
Q14 relative to Q11	195	3.64	3.94	-0.30	<.001	<.001
Q9 relative to Q7	196	3.54	3.83	-0.29	0.002	0.003
Q12 relative to Q15	198	3.76	3.78	-0.02	0.852	0.776
Panel D - RQ2 Accountants with no previous experience working for big four or mid four firms						
Q13 relative to Q17	114	3.63	3.93	-0.30	0.003	0.005
Q8 relative to Q10	114	3.72	3.82	-0.10	0.271	0.243
Q18 relative to Q19	113	3.47	3.92	-0.45	<.001	<.001
Q14 relative to Q11	107	3.71	4.02	-0.31	0.006	0.005

Q9 relative to Q7	112	3.56	3.91	-0.35	0.003	0.003
Q12 relative to Q15	**112**	**3.96**	**3.73**	**0.23**	**0.039**	**0.041**

The preliminary tests show that when introducing employment training, either current or cumulative, in general accountants do not perceive an expectation-performance gap as the mean of the competency question exceeds the mean of the expectation question. When the results are examined for accountants without big four or mid-four training as it relates to competency 6.7.5 and 6.7.6 where there is a statistically significant expectation-performance gap by both p-value measures.

RQ2 was then directly tested with a cross-tab using a Pearson Chi-Square test comparing any observed gap between expectation and performance between employment groups. Again, this gap is defined as the difference in the mean between the frequency and competency questions. The first round of testing looked at accountants who currently work for big four or mid-four firms compared to those who work for small or regional firms or industry. Testing was performed with CM competency by competency as well as with the overall validating questions. The data was then considered on an overall aggregate basis comparing the means of all competency questions against the means of all expectation questions. An ANOVA test was used to determine the significance level of any difference in means. The results of this testing are presented in Table 9.

Table 9

RQ2 Expectation-Performance Gap by Employment Group

	Big 4 / Mid 4 *n*	Small / Regional / Industry *n*	Pearson Chi-Square	ANOVA
Current Employment				
Q13 relative to Q17	161	152	0.836	
Q8 relative to Q10	161	151	0.546	
Q18 relative to Q19	161	152	0.225	
Q14 relative to Q11	157	145	0.757	
Q9 relative to Q7	158	150	0.700	
Q12 relative to Q15	160	150	0.311	
Avg Expectation relative to Avg Competency	162	152		0.135
Current and Previous Employment				
Q13 relative to Q17	199	114	0.693	
Q8 relative to Q10	198	114	0.786	
Q18 relative to Q19	199	114	0.111	
Q14 relative to Q11	195	107	0.935	
Q9 relative to Q7	196	112	0.270	
Q12 relative to Q15	198	112	0.408	
Avg Expectation relative to Avg Competency	200	114		0.648

The results of the analyses indicate there is no statistically significant difference in the expectation-performance gap when considering the employment group as defined with the big four and mid-four responses in one group and the small and regional professional practice firms and industry in another group.

As the data was available, the data was further explored to understand if a delineating factor was professional practice experience versus no professional practice experience, in either current or considering current and previous employment. The same preliminary measure of the expectation-performance gap by employment group was run to develop an expectation of where there might be gaps. Employment groups considered in this series of tests were:

- Panel A: Accountants who currently work for professional practice
- Panel B: Accountants who currently or previously worked for professional practice
- Panel C: Accountants who currently or previously have not worked for professional practice

The results of these preliminary tests are presented in Table 10.

Table 10

RQ2 Paired Sample Test by Professional Practice Experience versus Industry Experience

		Mean			*p-value*	
	n	Expectation	Competency	Difference	Paired t-test	Wilcoxon Signed Rank Test
Panel A - RQ2 Accountants who currently work for professional practice						
Q13 relative to Q17	246	3.62	3.89	-0.27	<.001	<.001
Q8 relative to Q10	246	3.67	3.74	-0.07	0.323	0.233
Q18 relative to Q19	245	3.43	3.98	-0.55	<.001	<.001
Q14 relative to Q11	238	3.52	3.88	-0.36	<.001	<.001
Q9 relative to Q7	241	3.78	3.78	0.00	<.001	<.001
Q12 relative to Q15	244	3.62	3.89	-0.27	1.000	0.900
Panel B - RQ2 Accountants who currently or previously worked for professional practice						
Q13 relative to Q17	272	3.63	3.88	-0.25	<.001	<.001
Q8 relative to Q10	271	3.66	3.75	-0.09	0.246	0.170
Q18 relative to Q19	271	3.46	3.97	-0.51	<.001	<.001
Q14 relative to Q11	263	3.66	3.95	-0.29	<.001	<.001
Q9 relative to Q7	267	3.54	3.85	-0.31	<.001	<.001
Q12 relative to Q15	270	3.80	3.77	0.03	0.716	0.799
Panel C - RQ2 Accountants who currently or previously have not worked for professional practice						
Q13 relative to Q17	41	3.73	3.90	-0.17	0.323	0.378
Q8 relative to Q10	41	3.76	3.78	-0.02	0.855	0.840
Q18 relative to Q19	41	3.56	3.88	-0.32	0.005	0.007
Q14 relative to Q11	39	3.67	4.08	-0.41	0.014	0.015
Q9 relative to Q7	41	3.59	3.93	-0.34	0.070	0.090
Q12 relative to Q15	**40**	**4.10**	**3.70**	**0.40**	**0.022**	**0.032**

The results demonstrate that accountants who pursue the traditional Chartered Accountant legacy program focus of working in a professional accounting firm respond have more consistency in their responses than accountants who train in the variability of industry. However, except for the small sample of industry-only accountants in CM competencies 6.7.5 and 6.7.6, an expectation-performance gap with the GST competencies is not statistically supported.

A statistical test of the difference between types of training paths was then prepared, similar to the above when directly testing RQ2. The same statistical tests were run with the Pearson Chi-Squared on the individual competency tests and an ANOVA on the aggregate mean data, but this time holding training experience in professional practice as the independent variable. The results are presented in Table 11.

Table 11

RQ2 Between Means Test by Professional Practice versus No Professional Practice

	Professional Practice *n*	Industry *n*	Pearson Chi-Square	ANOVA
Current Employment				
Q13 relative to Q17	**246**	**65**	**<.001**	
Q8 relative to Q10	246	65	0.953	
Q18 relative to Q19	246	66	0.831	
Q14 relative to Q11	**238**	**63**	**0.007**	
Q9 relative to Q7	241	66	0.481	
Q12 relative to Q15	244	65	0.870	
Avg Expectation relative to Avg Competency				0.099
Current and Previous Employment				
Q13 relative to Q17	272	41	0.621	
Q8 relative to Q10	271	41	0.571	
Q18 relative to Q19	272	41	0.344	
Q14 relative to Q11	263	39	0.403	
Q9 relative to Q7	267	41	0.576	
Q12 relative to Q15	267	41	0.508	
Avg Expectation relative to Avg Competency				0.352

Again, the majority of the findings demonstrate that there is no statistical difference in the expectation-performance gaps between groups. Of note, there is a statistical difference on the validating questions with a phi of .514 which represents a strong association relationship between the variables (Cohen, 1992). Phi is a relevant measure of relationship when the data is nominal, or, as in the case of the data above, ordinal data in a two by two table (Cohen, 1992). The questions representing competency 6.7.3, as it relates to current employment, also have a statistical difference with a Phi of .316, which represents a moderate association (Cohen, 1992).

Further exploring the data, a cross tab to determine the Pearson Chi-Square value without aggregating any of the employment groups was run to see if any new patterns emerged. The original survey instrument made distinctions in employment based on the type of industry (profit sector and not-for-profit sector) and recognized that some respondents may not currently be employed. The results of this test are presented in Table 12.

Table 12

RQ2 Between Means Test Unsegregated Employment Groups

	Industry		Professional Practice				
Current Employment	Not for Profit	For Profit	Big 4	Mid-4	Local or Regional	Not employed	Pearson Chi-Square
	n	*n*	*n*	*n*	*n*	*n*	
Q13 relative to Q17	**20**	**46**	**65**	**96**	**85**	**1**	**<.001**
Q8 relative to Q10	19	46	64	97	85	1	0.913
Q18 relative to Q19	20	46	65	96	85	1	0.933
Q14 relative to Q11	**19**	**44**	**63**	**94**	**81**	**1**	**0.005**
Q9 relative to Q7	20	46	62	96	83	1	0.809
Q12 relative to Q15	**20**	**46**	**65**	**96**	**85**	**1**	**<.001**

Here the results demonstrate at this more segregated level that the statistical difference in gap continues to exist on the validating questions and with competency 6.7.3 as with the more consolidated results. A statistical difference emerges with the questions representing competencies 6.7.5 and 6.7.6. Given the small sample size at this more segregated level, the results need to be taken with caution.

4.3.2 Qualitative Analysis RQ2

Additional data regarding accountants' perceptions on how any potential expectation-performance gap could have been closed was also gathered through the qualitative data in question 27. The volume of responses was typed qualitative responses was quite low (n = 80)

given the overall sample size. Respondents were asked to reflect on how they could have been better prepared for real-world GST solutions at three different stages (1) during their prerequisite training (2) during their PEP and (3) by their employer.

The desire for more content on GST and specifically, more case studies addressing GST issues to be built into the formal education processes during prerequisite training and PEP is the primary theme that emerges when analyzing the data with 79% of respondents desiring this in their post-secondary training and 72% desiring this during the PEP. Respondents also felt that universities should have a higher level of learning outcomes towards GST competence as part of the prerequisite training. A small percentage of respondents (12%) noted the desire to have facilitators with a higher level of competence towards GST in the PEP.

The responses fraction into more themes when looking at GST competence development in the work world. The primary themes were around professional development opportunities (31% of respondents), work experience in this technical area (23%), and employer offered training on specific topics (19%) with multiple discussions of GST in the public sector or not-for-profit area specifically. A minority of respondents mentioned they would like more access to technical experts (12%), or that there is nothing they would expect from their employer to build GST competence (15%).

4.3.3 Summary RQ2 Analysis

The overall analysis of RQ2 demonstrates that there is no significant difference in any perceived expectation-performance gap when employment categories as defined in this study is considered, with a few specific exceptions. The implications of those exceptions will be explored further in chapter 5. H1, which states that accountants who work for 'big four' or 'mid

four' firms have less of an expectation-performance gap than accountants who work for other employer groups is not supported based on the results of this research.

4.4 Data Analysis RQ3

RQ3 built on the first two research questions by examining whether there is an expectation-performance gap, how accountants are addressing this gap, and the role that CPD plays in closing it. On the whole, no expectation-performance gap was noted. Value is still gained from exploring the types of CPD newly trained accountants engage in as it relates to GST and taxation competencies. Survey Q16 sought information about the primary source of information newly trained accountants turn to for additional GST or HST information. The five options presented in the survey were consolidated into three general themes for statistical analysis. Talking to a professional expert or talking to colleagues or supervisors were merged into "someone to talk to" and self-study – technical sources and self-study – non-technical sources were combined into "self-study".

Statistical analysis on this RQ involved computing a Pearson Chi-Square result on the difference in means for the two validating questions across the three types of PD to see if there was any statistical relationship. Then an ANOVA on the difference between the mean on the expectation assessment questions (aggregate) and the competency assessment questions (aggregate) was performed as an additional test. The results of these tests are presented in Table 13.

Table 13

RQ3 Data Analysis

	Formal PD *n*	Self-Study *n*	Someone to Talk To *n*	Pearson Chi-Square	ANOVA
Q13 relative to Q17	65	184	63	0.741	
Avg expectation relative to avg competency	65	184	64		0.213

Respondents had to choose one of the response options about where they would primarily seek additional GST or HST information. Overall, the frequency of self-study was the highest, with formal PD or talking to a professional expert, colleague or supervisor with similar response rates. No statistical significance was noted in terms of CPD closing any expectation-performance gap in GST. In summary, no relationship between ongoing CPD and any of the earlier noted expectation-performance gaps was noted. Therefore, the hypothesis that there was a relationship between ongoing CPD and closing the expectation-performance gap was not supported.

4.5 Data analysis RQ4

4.5.1 Quantitative Analysis RQ4

RQ4 explored the CPD activities of newly trained accountants in GST / HST compared to CPD activities of the same group as it relates to other taxation competencies, specifically those in personal and corporate tax. Survey question 21 asked respondents to measure their knowledge about recent updates in the underlying GST / HST legislation (the *Excise Tax Act*) over the past year, and survey questions 24 and 25 asked respondents to measure similar knowledge about the *Income Tax Act*. Q24 focused on personal tax changes and Q25 focused on corporate tax changes.

Using the data from these questions a mean assessment of CPD activities in these areas was developed. Comparing the means with a p-value and the Wilcoxon Signed Rank Test, differences in the means were explored to determine if they were statistically significant. The analysis looked at the results of GST CPD compared to personal tax CPD or corporate tax CPD independently, and as an average across the two types of tax CPD. The results of this analysis are presented in Table 14.

Table 14

RQ4 Data Analysis

				p-value	
	n	*Mean*	*Mean*	Paired t-test	Wilcoxon Signed Rank Test
GST (Q21) relative to personal tax (Q24)	310	3.90	3.89	0.949	0.849
GST (Q21) relative to corporate tax (Q25)	**309**	**3.90**	**4.07**	**>.001**	**>.001**
GST (Q21) relative to average personal / corporate tax (Q24 / Q25)	310	3.90	3.98	0.076	0.115

A statistical relationship was noted whereby accountants are engaging in more PD on corporate tax updates than GST as evidenced by both the low (less than .05) paired p-value and Wilcoxon Signed Rank Test p-value. Accountants surveyed self-reported that they are engaging in more CPD as it relates to GST than personal taxes, but not by a statistically significant amount. Therefore, the hypotheses noted in RQ4 is partially proven. The original hypotheses stated that accountants have been engaged in more CPD as it relates to the *Income Tax Act* than the *Excise Tax Act*. The statistical results only partially support this hypothesis, as it relates to corporate taxes. The implications of this analysis on the profession will be further explored in Chapter 5.

4.5.2 Qualitative Analysis RQ4

RQ4 explored the types of CPD accountants are engaged in related to tax and GST. Open-ended survey questions 22 and 23 explored why accountants choose to take one CPD over another and how to improve CPD offerings in the tax area. The data was analyzed using the previous described thematic approach.

Overwhelmingly (n = 179) respondents cited employment opportunities as their primary reason (69%) for choosing a continuing professional development opportunity that covered GST. Examples might include growth within their current employment, accessing new employment or business opportunities, or perceived needs within the marketplace. Meeting their continuing professional development (12%) by engaging in continued competency development and staying current with new information also emerged as a theme. Characteristics of the professional development itself, such as online access, reasonable homework levels, and credentials of the instructor, were the next most frequently discussed theme (10%), followed by a general interest in the subject and employer support.

The qualitative data was fractioned by employment group, looking to see if there were different themes emerging between accountants who work in industry compared to professional practice. The course characteristics and quality of the professional development itself were of much more importance to accountants working in professional practice, while this theme was not raised as a theme by accountants working in industry. Employer support, such as the employer covering the course fees, allowing the course to be completed during working hours or having it offered as internal training, was another theme that emerged exclusively for accountants working in professional practice, with no instances of this theme being raised by accountants who work in industry. Conversely, accountants who work in industry perceived more employment

opportunities by increasing training in the area of GST than those accountants who work in professional practice.

Accountants who previously took a professional development offering in GST were asked what could have been done better (n = 59). The primary theme that emerged with 32% of respondents having a desire for a higher level of technical coverage and integrating concepts coverage, perhaps through more case studies as was noted as a finding under RQ2. Conversely, a slightly lower percentage of accountants (20%) stated they would prefer professional development was more focused on a review of basic skills.

Themes about better understanding economic theory and the economics of why taxes exist, and the impact of taxes was noted as an area of interest. The remaining themes that emerged were more varied and ranged from tax authority audits, cross border GST implications and better understanding GST rebates for individuals. Again, the theme about delivery model emerged as a consideration discussing on-line versus in-person, synchronous versus asynchronous and general rigour perhaps indicating a lack of variability of offerings in the CPD marketplace.

4.6 Summary

The quantitative analysis has shown that there are not many statistical differences in the results supporting the idea that there are expectation-performance gaps in GST competence, with a few exceptions. Interestingly, the data does show several statistical relationships, but in the other direction, where self-assessed performance exceeds expectations. The implications of these findings in both directions will be further explored in Chapter 5.

Chapter 5: Discussion and Interpretation

5.1 Introduction

In Chapter 4 the quantitative and qualitative results of the research study are presented. The purpose of this chapter is to interpret the results and draw overarching conclusions about both the research questions and the study's findings. The chapter will conclude with a discussion of the research's implications for the profession, as well as suggestions for future CPD. Causal implications to the post-secondary institutions providing pre-requisite training for students pursuing a path to the PEP will also be discussed. The researcher will conclude this chapter with ideas for future research that could enhance scholarly in the field of accounting technical competencies.

The hypothesis that there is a significant expectation-performance gap in GST competence among accountants is not supported, on the whole, by the data analysis presented in Chapter 4. The discussion in this chapter will focus on where statistical disparities were discovered in the data. This will improve understanding of the role that training path plays in the development of technical competency in accountants.

5.2 Discussion

The data analysis presented in Chapter 4 does not support that there is a significant expectation-performance gap with newly trained accountants related to GST competencies. This finding is significant because, as indicated in Chapter 2 in the literature review, there has been limited academic research in Canada, outside of that undertaken by the professional bodies, to determine if the accounting training program is meeting the needs of stakeholders. The research in this area conducted by CPA Canada has very limited release in an academic form, and from a critical thinking perspective, an independent observer would need to be concerned with any

marketing or spin on those results. This research study confirms that there is a limited expectation-performance gap in the GST competencies in the current CM. Accountants, with few exceptions, are meeting the needs of stakeholders.

5.2.1 Performance exceeds expectation

While not within the original scope of the research study in terms of RQ's, the findings do show that for many of the competencies, across many of the employment categories, that self-assessed performance in GST exceeds stakeholder expectations, in a statistically significant manner. This is demonstrated in the data tables throughout chapter 4, where the mean measure of performance exceeds the mean measure of expectation with statistical significance. As the majority of the competencies demonstrate excess performance, this supports the notion that accountants, as a whole, are meeting and exceeding the needs of stakeholders when it comes to GST competence, developed at any point through their training path. However, there are several gaps in establishing GST competence discussed in the next section to further explore how accountants can be better trained to meet the needs of stakeholders.

5.2.2 Expectation exceeds performance

Individual competency analysis during the statistical analysis for RQ2 found expectation-performance gaps with competencies 6.7.5 and 6.7.6. These competencies, as defined in the CM (CPA Canada, 2022b), refer to accountants' capacity to analyze GST implications from tax planning for shareholders and closely held corporations (6.7.5) and explain GST obligations from other transactions (6.7.6). Statistically significant expectation-performance gaps emerged when looking at accountants who currently work in smaller (regional or sole-proprietorship) firms, industry and with those who had no previous experience working for big-four or mid-four firms. Another area where statistically significant expectation-performance gaps

were found were in competencies 6.7.3 and in overall validating questions, pertaining to calculating net tax (GST) for a person, where accountants who work in industry are not meeting the needs of stakeholders as much as those who currently work in professional practice. As all expectation-performance gaps noted involve accountants who work in industry or small and regional firms, findings can be generalized for accountants who have followed this type of training path in their continuum to competency development. Further competency development to meet the expectations of clients and employers as they transition to being more seasoned professional will need to touch more GST technical skills than those coming out of big-four or mid-four firms.

In Canada, all provincial accounting bodies have adopted the International Federation of Accountants' (IFAC) CPD Standards (CPA British Columbia, 2023), which harmonizes the CPD requirements of CPAs across Canada and accountants around the world. IFAC standards have an overarching CPD goal of what is "required for professional accountants to develop and maintain the professional competence necessary to provide high-quality services to clients, employers, and other stakeholders, and thereby strengthen public trust in the accountancy profession" (IFAC, 2020). IFAC standards, and hence, provincial accounting bodies CPD standards are broad in nature, addressing continual learning and development in both technical and non-technical areas, with no specific requirements for any particular technical requirements. Only two areas for development are specifically laid out (ethics and money-laundering), otherwise allowing accountants to pick which areas to focus on when developing and maintaining their professional competence. This freedom may imply that if accountants are unaware that there is a statistically significant expectation-performance gap in specific competencies, they may not seek continued professional development opportunities to close that gap.

The analysis under RQ4 focused on the types of CPD accountants engage in as it relates to the taxation competencies. The data showed that accountants are statistically more likely to participate in CPD relating to corporate tax than GST. Reasons for choosing CPD were explored in the qualitative analysis with themes surrounding perceived employment opportunities emerging. This indicates that accountants believe this is an underserved market by professionals.

Other strong themes emerged about how to improve CPD options inside the course offering itself. Respondents who have access to high quality, easily accessible courses supported by their employers are more likely to engage in GST-related CPD in order to close any expectation-performance gap. Murphy (2017), as part of a study examining accountant engagement with available CPD offerings, emphasized that it is incumbent on educators to tailor relevant offerings to appropriately cater for practitioner needs. An earlier review of available CPD on GST (Clowes, 2018) found that the offerings are fairly limited in the Canadian landscape, with the same courses repeated across the provinces. Private options, other than those provided by provincial or national regulatory bodies, are considerably more limited.

5.3 Implications for Practice

This academic study identified particular areas where there are expectation-performance gaps in GST technical competency have emerged. If these technical competencies are not being developed as part of the prerequisite program or PEP, accountants and employers will be responsible for ensuring their development. Big-four and mid-four firms, as evidenced by the segregation of employment groups, have figured out how to close these gaps in order to meet their expectations. While the study did not specifically address how those employer groups are narrowing the gaps, the researcher expects it is through work design, with specialized technical responsibilities outsourced to specialists, or by supporting and requiring CPD in these areas.

These gaps are more prevalent with other employer groups (small firms and industry), and it is up to those employers, stakeholders, and accountants working in those areas to address ways to close the gaps.

Small firms and industry stakeholders may require increased awareness that accounting competency development through the PEP may not meet all of their requirements. Independent academic research, such as this study, and the publication of its findings, can bring perceptions regarding accountants' competence to light in a realistic manner. Small firms and industry stakeholders who require a specific level of technical tax competency should be prepared to develop that competency through mentoring or CPD, or they may consider outsourcing more specific tax technical planning and tasks.

Accountants must also ensure their CPD adds value and closes expectation-performance gap. A common career path for accountants is to train in a professional accounting setting before transitioning to industry. As part of that movement, accountants should be encouraged to recognize that they may lack relevant competencies for industry and to develop a solid strategy to improve their competencies. As evidenced in the thematic research, the accountants included in this survey appear to understand that further GST competency development is needed to increase their employment opportunities and are seeking either industry and profession support to ensure these courses are accessible or employer support to ensure they have access to resources.

The accounting profession is on the cusp of a change to the training methodologies. This transformation is so significant that it could be compared to the profession's amalgamation and the retirement of legacy accounting programs, as well as the transition to competency-based evaluations. CM 2.0, and the corresponding changes to the accounting training program, are

scheduled to launch out in 2027, delayed from the original target date of 2025 as post-secondary institutions needed time to implement necessary changes to the pre-requisite courses (CPA Canada, 2022a). While the conceptualization of 2.0 is still in process as it relates to the certification process, the body of skills and competencies that accountants will need to meet has been laid out. Changes are coming to both the overall framework as well as to specific competencies and descriptions of those levels that accountants must attain. The lowest level of competency in CM 2.0 is uses verbs such as identify or describe, while the highest level uses verbs such as collaborate, create, critically evaluate, design, formulate or interpret (CPA Canada, 2022a). The ethical mindset is then integrated into all competencies.

Looking at the proposed changes for 2.0 (CPA Canada, 2022a), the definition of tax competencies are:

- basic tax compliance and reporting
- basic tax planning and implementation strategies for both corporate and personal taxpayers
- a high-level understanding of the administrative processes in Canadian taxation

Overall, the taxation competencies will vary between levels two, three, four, and five (out of a possible five scale competency scale). What remains to be disclosed by the profession is where, if anywhere, GST competencies will fall on this new competency scale.

This research study has shown that stakeholders are expecting some GST competence in accountants, as measured by the frequency of performance questions throughout this study's survey instrument. Stakeholder expectation, as measured in the survey instrument by the frequency questions (Q8, Q9, Q12, Q13, Q14 and Q18) have a mean of 3.6, which corresponds on the Likert scale to between sometimes and frequently. This means that stakeholders expect

accountants to have some competence in GST. CM 2.0 has been guided by consultation by advisory groups, employers, academics and members (CPA Canada, 2022a), but only time will tell following implementation if the needs of stakeholders are continued to be met from the changes to the education program and competency development in areas where they are currently met or exceeded. Also, of interest will be if existing expectation-performance gaps will widen.

As post-secondary institutions prepare for CM 2.0 changes in their learning outcomes for courses that qualify for prerequisite consideration in the new PEP, they may consider whether GST education and competency development should be at the post-secondary level rather than the PEP. Not all post-secondary students who take accounting courses progress to or complete the PEP. It seems unlikely that an undergraduate accounting degree student without further accounting education will go on to file section 85 elections or analyze connected entities. Given the end-user nature of GST, those same students might more feasibly be required to perform basic GST administrative requirements in an entry-level accounting job or to plan for GST in the form of rebates for individuals. Because accounting competency development is a continuum, the level C and B competency elements may require more attention at the post-secondary level. A realistic way could be to use this analysis to identify areas where accountants are over-trained in GST technical competencies, and then re-weight the learning objectives and outcomes at the post-secondary level to ensure full coverage at introductory competency levels to meet employer expectations.

The existing learning materials to teach future generations of accountants about GST should also be considered. When asked about the quality of GST training, survey respondents shared a common desire to see more real-world GST situations integrated into their educational

materials and coursework. At the university level, developing higher level critical thinking abilities around GST to identify difficulties and areas where GST concerns may be relevant could improve accountants' overall competency development. In the PEP, thinking about GST at a transactional and cash flow level when demonstrating higher level critical thinking and integration skills should be rewarded rather than specific exclusion.

5.4 Implications for Research

This study makes several contributions to research in this field. First, it expands on how Bui & Porter's (2010)'s expectation-performance gap model can be applied to different types of accounting competencies. This model has previously been used to describe generic (Dolce et al., 2020) or assurance-related (Porter, 1993) accounting competency gaps. This study established a foundation for future researchers to apply this model to the study of other technical competencies using mixed method research tools which could cross to other professions outside of accounting.

Second, the study increased independent academic understanding of competency development in the Canadian accounting, specifically technical competency development. While this study did not find significant expectation-performance gaps as expected, all academic research contributes to better knowledge. Because many decisions about what Canadian accountants should study and develop competency in are kept held confidential, in whole or in part, by the profession, external research confirming the right competencies or critically evaluating the competency choices made, adds value encouraging ongoing critical thinking and dialogue with an overall view to ensure the profession meet the needs of stakeholders. The distinction by employment group as part of the training path for accountants was novel in the Canadian landscape and provided insights on how training path and employment influence competency development.

Finally, this study solicited feedback from accountants on their CPD needs and choices in order to assist educators in better understanding of their client base. This information could be used by post-secondary institutions to design courses that match the needs of accountants rather reacting to mandated prerequisite learning outcomes by mapping to professional CM's. Respondents noted a shortage of integrated cases including GST and academics should consider devoting some of their scholarly activities to developing more case-based scenarios covering GST. Public and private CPD providers could tailor their courses to the types of areas and sectors in which accountants seek CPD, including qualitative considerations such as preferred course qualities.

5.5 Limitations and Further Research

This study defined stakeholders as "employers and clients". The true nature of stakeholders for accountants is broader and includes employers, clients, the accounting profession in general, and, of course, the accountants who make up the profession. The limited definition of stakeholders employed in this study does not directly consider the impact of GST competence on the broader definition of stakeholders.

Academic research in Canada on accounting competency development is sparse, as determined by the literature review earlier in this paper. While the professional bodies conduct studies, task forces, and consultation on expectations for accounting competency development, the methodology and findings of these studies have not been published for wider academic analysis and discussion. Access to accountant populations, which is kept confidential, limits independent academic study of accounting competency improvement in Canada. Partnerships between CPA Canada, provincial bodies and academic institutions should be sought so that

research can be performed in an ethical manner that respects members' anonymity while also allowing true scholarly activity to occur for the benefit of both the profession and stakeholders.

This study was constrained by the lack of access to true population data on the employment and other demographic characteristics of accountants. The study sought to obtain a large enough sample size with a reasonable distribution across key demographic factors to try to bring relevance to recommendations. Access to real demographic statistics would have only reinforced any statistical approaches in reaching conclusions and recommendations.

This study focused solely on GST competency development, which is taught and tested in both the post-secondary and in the PEP. While provinces with HST have their provincial portion of value added taxes administered in the same manner as GST, three provinces (Saskatchewan, Manitoba, and British Columbia) have a separate PST. Competency development is excluded from prerequisite courses and PEP thus the individual accountant must acquire it through self-study, mentoring or limited professional development offerings. Further research could determine whether the expectation-performance gap is larger, smaller or the same when considering the provincial sales tax regime.

This study examined accountants' perceptions of expectation based on a frequency assessment. This area of research could be broadened to incorporate other stakeholders' perspectives on assessing expectation, resulting in a more comprehensive assessment of the expectation-performance gap. Both frequency and competency were self-reported by respondents, which leads to inherent limitations in verifying the accuracy of self-reported data. Similar research on different types of accounting competency development has been attempted in the past with external data gathered to validate the self-reported data through a paired survey

model (Morpurgo, 2014), and a constraining element is sufficient stakeholder engagement with the survey to generate a sample size significant enough for general academic conclusions.

And finally, as CM 2.0 approaches, academic researchers in Canada will have a new area to examine to determine if 2.0 changes expectation-performance gaps, in GST or any other area of the map. Recent academic viewpoints (Pimentel & Boulianne, 2021) have affirmed earlier academic contributions (Greenwood et al., 2002) as to the politics of competency map development within the accounting profession in Canada. Further academic research to ensure that stakeholders' needs are met by the ongoing redevelopment of accounting training and preliminary competency development will either reinforce the strategy or spark ongoing conversation about the optimal combination of technical, enabling and digital skills development.

5.6 Conclusion

This study was initially conceptualized in 2018, as a result of the researcher's longstanding interest in technical tax development. Ultimately the accounting profession determines which tax technical competencies are within and out of scope for a newly developed accountant. Throughout the conceptualization and implementation of this study the profession implemented two revisions to the competency map governing accounting competency development, with the most significant shift coming with the introduction of CM 2.0. While initial hypotheses about the impact of big-four and mid-four training paths on tax technical competency development have largely not been supported by the statistical study, other areas have emerged where there are specific gaps in competency development supporting that there are expectation-performance gaps in accounting education.

Optimal accounting competency requirements and development are continually evolving as the needs of stakeholders to the profession shift. Universities, national and provincial accounting regulators and the professional accountants all contribute to meeting the needs of stakeholders. The frequency assessment throughout this survey instrument repeatedly revealed that GST, while not one of the most fascinating things for accountants to understand, is something that stakeholders expect accountants to have competency in. As the profession adapts to changing technologies and the demands placed on accountants, it must also ensure that basic competency development is maintained. This study emphasized the relevance of technical competencies for accountants.

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Appendix A

Summary of Research Studies on Accounting Competencies

Authors	Time Period	Data Analyzed	Research Objectives	Key Findings
Francis & Minchington (1999)	1998	Questionnaires from 296 employers responsible for training management accountants and 36 accounting educators in the United Kingdom.	To determine the extent to which management accountants are receiving appropriate training in quantitative methods	▪ There is a disparity between the range of quantitative techniques covered within the professional accounting body syllabi and the use of these techniques in practice; ▪ Quantitative skills are valued by both employers and accounting educators as required skills for management accountants.
Kavanagh & Drennan (2008)	2006	Survey of 322 graduating students and 28 employers in Australia.	To examine perceptions and expectations of two major stakeholders: students and employers.	▪ Students are aware of employers' expectations of communication, analytical, professional, and teamwork skills; ▪ In addition to basic accounting skills and strong analytical skills, employers require business awareness and knowledge of the 'real world'.
Barac (2009)	2007	Survey of 153 training officers within and outside accounting professional practice in South Africa.	To determine training officers' perceptions of the knowledge and skills requirements of entry-level trainee accountants.	▪ Training CAs require an expanded set of competencies beyond technical knowledge; ▪ Training offices outside of professional practice weighted management accounting topics as more important than professional practice training offices.
Jackling & De Lange (2009)	2006	Survey of 174 graduates compared with a survey of employers in Australia.	To investigate the development of technical and generic skills from the accounting graduate and employer perspective.	▪ Technical accounting skills are important; ▪ Employers require a broad range of generic skills. Graduates feel they are not sufficiently developing these skills in their undergraduate studies.

Bui & Porter (2010)	2004 – 2005	Interviews with students, academics, graduate trainees, and employers of accounting students in New Zealand.	To explore the validity of the hypothesized expectation-performance gap structure.	▪ The level of competence required of accounting graduates varies between firms of different sizes; ▪ Accounting graduates have a solid base of accounting knowledge, but insufficient practical accounting knowledge and skills.
A. Miller & Woods (2000)	2000	Parallel questionnaires to educators teaching tax at university and accounting firms likely to recruit graduates.	To explore an expectation gap between the knowledge of taxation acquired at university and the knowledge employers expect graduates have in the UK	▪ Differences exist between employer's current expectations of graduates tax abilities and employers preferences for graduates tax abilities.
Coetzee & Oberholzer (2009)	2006	Questionnaire of 18 accounting firms in one municipality	To explore training accountant firms perceptions of the existing tax knowledge of training accountants upon hiring	▪ Training accountants were not sufficiently able to perform their duties, despite having an appropriate educational background.
Abayadeera & Watty (2014)	2013	Questionnaires from 19 accounting university educators and 31 graduate employers in Sri Lanka.	To investigate the generic skills that are important for the career successes of accounting graduates.	▪ There is an expectation-performance gap in generic skills in accounting education; ▪ A causal factor is low confidence in university educators in teaching generic skills.
Riley & Simons (2016)	2015	A survey of 185 practicing accountants and accounting faculty in the United States.	To examine which written communication skills are needed by entry-level accountants.	▪ Good written communication skills are essential for entry-level accounting graduates; ▪ The most bothersome written communication errors were in the categories of spelling or proper word usage, grammar, punctuation, and clarity.
Webb & Chaffer (2016)	2014	Questionnaire from 1655 training professional accountants.	To examine the perceptions of graduates on opportunities for	▪ There is room for improvement for universities to take advantage of generic skills development, specifically oral

			generic skills development during their accounting degree.	communication, broad-based organizational understanding, resilience, and ethical awareness.
Douglas & Gammie (2019)	2010 – 2012	Questionnaires with 104 training accountants at 'big four' accounting firms in Scotland, and interviews with university educators	To further the debate on non-technical skill development of accounting graduates.	▪ 'Big four' firms look at general ability and skills possessed by applicants; ▪ 'Big four' firms do not prefer university graduates with an accounting background.
Dolce, Emanuel, Cisi, & Ghislieri (2020)	2015 – 2016	Questionnaires from 251 accounting graduates and 74 employers in Italy	To explore the viewpoints on soft skills of accounting graduates and employers.	▪ Graduates underestimated the importance of teamwork and public speaking; ▪ Employers prioritize soft skills over technical skills.
Herbert, Rothwell, Glover, & Lambert (2020)	2015 – 2017	Focus groups with employers and educators in the United Kingdom	To explore the process of becoming work-ready and development of a professional identity.	▪ The projection of work-readiness is an advantage in securing graduate employment.
Murphy & Hassall (2020)	2018	Interviews of 23 participants ranging from 5 – 45 years post-qualification experience in Ireland.	To explore how professional competence is developed or maintained throughout the career of a professional.	▪ There are four distinct experiential stages: novice, competent, proficient, and expert; ▪ Different competencies and developmental practices occur at each stage.
Uwizeyemungu, Bertrand, & Poba-Nzaou (2020)	2016 – 2017	Technical competencies in 171 online job advertisements for accounting positions in Canadian organizations	To determine the technical competencies expected by the Canadian labour market from graduates of an academic accounting education.	▪ Top 3 competencies are: Microsoft Office package or equivalent, financial report preparation, and organizational performance management; ▪ Top 3 profiles of job postings are: tax aggressiveness, financial reporting, and performance management.
Jackson, Michelson, & Munir (2023)	2020	Mixed-methods study of 315 early career accountants and 175	To determine if there is an expectation-performance gap in technology related	▪ Different perceptions exist between the two groups ▪ Early career accountants are expecting more employer-based training

	managers/recruiters in Australia	skills for early accounting graduates in Australia.	▪ Managers/recruiters are expecting accountings are developing these competencies through their post-secondary education

Appendix B

Survey Questionnaire

Demographic Profile

CPA Profile

1. In what year did you qualify (pass the common final examination) for your Chartered Professional Accountant (CPA) designation?
    a) 2022
    b) 2021
    c) 2020
    d) 2019
    e) 2018
    f) Prior to 2017
    g) I have not yet written the common final examination, or I am not enrolled in the professional education program for the CPA designation.

2. When completing the CPA Professional Education Program, did you successfully complete the Taxation elective module?
    a) Yes
    b) No
    c) I'm not sure / prefer not to say

3. I have completed CPA Canada's In-depth GST / HST Course or a Masters of Taxation program?
    a) Yes
    b) No
    c) I'm not sure / prefer not to say

4. For the last continuing professional development reporting period with your provincial / territorial institute, were you compliant with your CPD reporting requirements?
    a) Yes
    b) No
    c) I'm not yet required to report CPD as I am not yet designated, or I have been designated within the last CPD reporting period.
    d) I'm not sure / prefer not to say

5. My current field of employment is:
    a) Professional practice – 'big four' – Deloitte, EY, PwC or KPMG
    b) Professional practice – mid-sized firm with offices across the country (Baker Tilly, BDO, Crowe, Grant Thornton and MNP)
    c) Professional practice – local or regional firm not identified above
    d) Industry (profit sector)

e) Industry (not-for-profit sector)
e) Not currently employed

6. Directly prior to my current field of employment, but after entering the CPA professional education program, I was employed by:
    a) Professional practice – 'big four'
    b) Professional practice – mid-sized firm with offices across the country
    c) Professional practice – local or regional firm
    d) Industry (profit sector)
    e) Industry (not-for-profit sector)
    f) Not applicable – I have been in my current employment since entering the CPA professional education program.

7. I am able to perform basic GST or HST compliance activities:
    a) Strongly disagree
    b) Disagree
    c) Neither disagree or agree
    d) Agree
    e) Strongly agree

8. How frequently am I required to advise colleagues, supervisors or clients on GST registration and / or taxable, exempt or zero-rated GST supplies?
    a) Never
    b) Rarely
    c) Sometimes
    d) Frequently
    e) Always
    f) NA – I am not required to advise colleagues, supervisors or clients on GST

9. How frequently am I required to independently administer GST or HST compliance activities within my organization?
    a) Never
    b) Rarely
    c) Sometimes
    d) Frequently
    e) Always
    f) N/A – I am not required to independently administer GST or HST compliance activities within my organization

10. I have the required retrieval and comprehension skills to administer current GST or HST legislation compliance and filing requirements:
    a) Strongly disagree
    b) Disagree
    c) Neither agree nor disagree
    d) Agree
    e) Strongly agree

11. If required, I would be comfortable explaining information regarding GST or HST rules and application on routine transactions to other employees, clients or supervisors:
    a) Strongly disagree
    b) Disagree
    c) Neither agree nor disagree
    d) Agree
    e) Strongly agree

12. I have to explain information regarding GST or HST rules and application on routine transactions to other employees, clients or supervisors:
    a) Never
    b) Rarely
    c) Sometimes
    d) Frequently
    e) Always
    f) I am not required to explain information regarding GST or HST rules and application to other employees, clients or supervisors.

13. I meet my employer's or client's needs regarding ongoing GST or HST administration:
    a) Never
    b) Rarely
    c) Sometimes
    d) Frequently
    e) Always

14. My volunteer responsibilities require me to perform GST / HST compliance activities or explain GST or HST information to stakeholders (such as boards or employees of the volunteer organization):
    a) Never
    b) Rarely
    c) Sometimes
    d) Frequently
    e) Always
    f) Not applicable – My volunteer responsibilities are not financial in nature or I don't have volunteer responsibilities

15. I have the required technical skill to identify, analyze and make recommendations on GST or HST planning for complex transactions such as intercompany transactions or real property:
    a) Strongly disagree
    b) Disagree
    c) Neither agree nor disagree
    d) Agree
    e) Strongly agree

16. What source of information would you primarily turn to for additional GST or HST information?
    a) Formal continuing professional development
    b) Professional expert
    c) Colleagues or supervisor
    d) Self-study – technical sources (e.g. CRA website, tax bulletins, firm reference materials, etc.)
    e) Self-study – non-technical sources (e.g. Wikipedia, internet search, chat forums, etc.

17. Compared to when I passed my CFE, my GST or HST knowledge has:
    a) Decreased significantly
    b) Decreased somewhat
    b) Stayed the same
    c) Increased somewhat
    d) Increased significantly

18. I have to advise on, or research, place of supply rules as they relate to interprovincial or online transactions:
    a) Never
    b) Rarely
    c) Sometimes
    d) Frequently
    e) Always

19. I am comfortable analyzing taxable and non-taxable supply rules and concluding on the appropriate treatment as it relates to GST collection requirements:
    a) Strongly disagree
    b) Disagree
    c) Neither agree nor disagree
    d) Agree
    e) Strongly agree

20. I am competent with current GST or HST legislation administration and filing requirements:
    a) Strongly disagree
    b) Disagree
    c) Neither agree nor disagree
    d) Agree
    e) Strongly agree

21. I am knowledgeable about updates and changes within the *Excise Tax Act* over the past year as they relate to GST or HST:
    a) Strongly disagree
    b) Disagree
    c) Neither agree nor disagree

d) Agree
e) Strongly agree

22. What would make you more inclined to take a professional development offering covering GST / HST?

23. If you have taken a professional development offering covering GST / HST, what could have been done better?

24. I am knowledgeable about updates and changes within the *Income Tax Act* over the past year as it relates to personal taxes:
    a) Strongly disagree
    b) Disagree
    c) Neither agree nor disagree
    d) Agree
    e) Strongly agree

25. I am knowledgeable about updates and changes within the *Income Tax Act* over the past year as it relates to corporate taxes:
    a) Strongly disagree
    b) Disagree
    c) Neither agree nor disagree
    d) Agree
    e) Strongly agree

26. Considering all of your GST competence, at what stage in your career progression was it primarily acquired?
    a) Before entering university
    b) During university
    c) During the professional education program
    d) Post-professional education program

27. What could have been done to better prepare you to have the required GST / HST competence for real-world situations?
    a) During your university / post-secondary training?
    b) By CPA Canada during your professional education program?
    c) By your employer?

28. Do you think accountants need to know about GST / HST?

29. What does it mean to you for an accountant to be competent in GST / HST?

Personal Profile

30. What is your sex?
    a) Male

b) Female
c) Intersex
d) Not listed
e) Prefer not to say / answer

31. What is your age range?
    a) 20 – 24
    b) 25 – 29
    c) 30 – 39
    d) 40 – 49
    e) 50 – 64
    f) Over 65
    g) Prefer not to say

32. In which province do you currently reside?
    a) British Columbia
    b) Alberta
    c) Saskatchewan
    d) Manitoba
    e) Ontario
    f) Quebec
    g) New Brunswick
    h) Prince Edward Island
    i) Nova Scotia
    j) Newfoundland
    k) The Territories (Nunavut, Northwest Territories, Yukon)
    l) Prefer not to say

33. What is your role in the organization?
    a) Employee (non-supervisory)
    b) Manager
    c) Senior Manager / Director
    d) Executive / Owner / Partner
    e) Self-employed / contractor
    f) Unemployed
    g) Prefer not to say

Appendix C

Analysis of Survey Questions and Contribution to Research

Question	Purpose of Question	Scale	Competency Map Link
1. In what year did you qualify (pass the CFE) for your CPA designation?	Demographic information used to determine if respondents meet the defined population of "newly designated accountants"		
2. When completing the CPA PEP, did you successfully complete the Taxation elective module?	Demographic information to help determine if completing the CPA PEP affects competency development		
3. I have completed CPA Canada's In-depth GST / HST Course or a Masters of Taxation program	Demographic information to help determine significant post qualification CPD		
4. For the last continuing professional development reporting period with your provincial / territorial institute, were you compliant with your CPD reporting requirements?	Demographic information to help determine if respondents were meeting the professional minimum requirements		
5 and 6. My current field of employment is / directly prior to my current employment, but after entering the CPA professional education program, I was employed by?	RQ2 RQ4		

7.	I am able to **perform** basic GST or HST compliance or administration activities.	Competency assessment to determine performance (Level B)	Five-point Likert agree / disagree scale	6.7.4 – Discuss GST compliance requirements
8.	How frequently am I required to advise colleagues, supervisors or clients on GST registration and / or taxable, exempt or zero rated GST supplies?	Expectation assessment	Five-point Likert frequency scale	6.7.1 Discusses the GST system in Canada
9.	How frequently am I required to independently administer GST or HST compliance activities within my organization?	Expectation assessment	Five-point Likert frequency scale	6.7.4 Discusses GST compliance requirements
10.	I have the required **retrieval and comprehension skills** to administer current GST or HST legislation compliance and filing requirements.	Competency assessment to determine performance (Level C)	Five-point Likert agree / disagree scale	6.7.1 Discusses the GST system in Canada
11.	If required, I would be comfortable **explaining** information regarding GST or HST rules and application on **routine transactions** to other employees, clients or supervisors.	Competency assessment to determine performance (Level B)	Five-point Likert agree / disagree scale	6.7.3. Calculates net tax for a person
12.	I have to explain information regarding GST or HST rules and application on routine transactions to other employees, clients or supervisors.	Expectation assessment	Five-point Likert frequency scale	6.7.5 Analyzes GST implications from tax planning for shareholders and their closely held corporations and 6.7.6 Explains GST obligations arising

			from other transactions
13. I meet my employer's or client's needs regarding ongoing GST or HST administration.	Expectation assessment. Validating question to determine if overall there is an expectation gap.	Five-point Likert frequency scale	Not tied to a specific competency.
14. My volunteer responsibilities require me to perform GST / HST compliance activities or explain GST or HST information to stakeholders (such as boards or employees of the volunteer organization).	Expectation assessment	Five-point Likert frequency scale	6.7.3 Calculates net tax for a person
15. I have the required technical skill to **identify, analyze and make recommendations** on GST or HST planning for complex transactions such as intercompany transactions or real property.	Competency assessment to determine performance (Level A)	Five-point Likert agree / disagree scale	6.7.5 Analyzes GST implications from tax planning for shareholders and their closely-held corporation sand 6.7.6 Explains GST obligations arising from other transactions
16. What source of information would you primarily turn to for additional GST or HST information?	RQ3, RQ4		
17. Compared to when I passed my CFE, my GST or HST knowledge has:	Competency assessment to determine performance. Validating question to determine if overall there is an expectation gap.	Five-point Likert scale	
18. I have to advise on or research place of supply rules as they	Expectation assessment	Five-point Likert frequency scale	6.7.2 Analyzing GST obligations of a person

relates to interprovincial or on-line transactions.			
19. I am comfortable **analyzing** taxable and non-taxable supply rules and **concluding** on the appropriate treatment as it relates to GST collection requirements.	Competency assessment to determine performance (Level A)	Five-point Likert agree / disagree scale	6.7.2 Analyzing GST obligations of a person
20. I am competent with current GST or HST legislation administration and filing requirements.	RQ3	Five-point Likert agree / disagree scale	
21. I am knowledgeable about updates and changes within the *Excise Tax Act* over the past year as they relate to GST or HST?	RQ4	Five-point Likert agree / disagree scale	
22. What would make you more inclined to take a professional development offering covering GST / HST?	RQ4	Open-ended	
23. If you have taken a professional development offering covering GST / HST, what could have been done better?	RQ4	Open-ended	
24. I am knowledgeable about updates and changes within the *Income Tax Act* over the past year as it relates to personal taxes.	RQ4	Five-point Likert agree / disagree scale	
25. I am knowledgeable about updates and changes within the *Income Tax Act* over	RQ4	Five-point Likert agree / disagree scale	

the past year as it relates to corporate taxes.		
26. Considering all of your GST competence, at what stage in your career progression was it primarily acquired?	Validating question to determine if there was an expectation gap, was it addressed already?	
27. What could have been done to better prepare you to have the required GST / HST competence for real-world situations?	RQ2	Open-ended
28. Do you think accountants need to know about GST / HST?	RQ1	Open-ended
29. What does it mean to you for an accountant to be competent in GST / HST?	RQ1	Open-ended
Questions 30 – 33	Demographic information for additional information in data analysis	

Appendix D

Athabasca University
RESEARCH CENTRE

CERTIFICATION OF ETHICAL APPROVAL

The Athabasca University Research Ethics Board (REB) has reviewed and approved the research project noted below. The REB is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2) and Athabasca University Policy and Procedures.

Ethics File No.: 25180

Principal Investigator:
Ms. Tara Clowes, Graduate Student
Faculty of Business\Doctor of Business Administration (DBA)

Supervisor/Project Team:
Dr. Angela Workman-Stark (Supervisor)

Project Title:
Competency in Goods and Services Tax for Canadian Professionally Designated Accountants: Analyzing an Expectation-Performance Gap

Effective Date: June 09, 2023 **Expiry Date:** June 08, 2024

Restrictions:

Any modification/amendment to the approved research must be submitted to the AUREB for approval prior to proceeding.

Any adverse event or incidental findings must be reported to the AUREB as soon as possible, for review.

Ethical approval is valid *for a period of one year*. An annual request for renewal must be submitted and approved by the above expiry date if a project is ongoing beyond one year.

An Ethics Final Report must be submitted when the research is complete *(i.e. all participant contact and data collection is concluded, no follow-up with participants is anticipated and findings have been made available/provided to participants (if applicable))* or the research is terminated.

Approved by: **Date: June 09, 2023**

Weiming Liu, Chair
Faculty of Business, Departmental Ethics Review Committee

Athabasca University Research Ethics Board
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Athabasca University

CERTIFICATION OF ETHICAL APPROVAL - RENEWAL

The Athabasca University Research Ethics Board (REB) has reviewed and approved the research project noted below. The REB is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2) and Athabasca University Policy and Procedures.

Ethics File No.: 25180

Principal Investigator:
Ms. Tara Clowes, Graduate Student
Faculty of Business\Doctor of Business Administration (DBA)

Supervisor/Project Team:
Dr. Angela Workman-Stark (Supervisor)

Project Title:
Competency in Goods and Services Tax for Canadian Professionally Designated Accountants: Analyzing an Expectation-Performance Gap

Effective Date: June 8, 2024 **Expiry Date:** June 07, 2025

Restrictions:

Any modification/amendment to the approved research must be submitted to the AUREB for approval prior to proceeding.

Any adverse event or incidental findings must be reported to the AUREB as soon as possible, for review.

Ethical approval is valid *for a period of one year*. An annual request for renewal must be submitted and approved by the above expiry date if a project is ongoing beyond one year.

An Ethics Final Report must be submitted when the research is complete *(i.e. all participant contact and data collection is concluded, no follow-up with participants is anticipated and findings have been made available/provided to participants (if applicable))* or the research is terminated.

Approved by: **Date: May 14, 2024**

Paul Jerry, Chair
Athabasca University Research Ethics Board

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