A CRITICAL ANALYSIS OF THE IMPACT OF PERCEPTION INTERVENTION ON THE SELECTION OF ACCOUNTING AS A MAJOR AT CLARK ATLANTA UNIVERSITY

Thesis submitted in accordance with the requirements of the University of Liverpool for the degree of Doctor of Business Administration

By

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Abstract

Title: A critical analysis of the impact of perception intervention on the selection of accounting as a major at Clark Atlanta University

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Universities in the United States are experiencing an increase in students majoring in accounting. The accounting department at Clark Atlanta University (CAU), on the other hand, has experienced a decrease in students majoring in accounting. The study examines the influences that contribute to selecting a major in accounting and the ability to alter those influences to change the selection of a major.

The literature supports the development of the thesis hypotheses for the quantitative aspect of the research and contributes to the formation of action research. Studies regarding the Theory of Planned Behavior (TPB) and moderating variables, locus of control (LOC), openness to experience (OTE), and situational achievement motivation (SAM), and the use the TPB are argued.

A critical action learning set modality is used to develop three action research paths. The action Path 1 is to convert existing CAU non-accounting students to the accounting major entailing two complete cycles. Action Path 2 seeks to develop relationships with Georgia high schools to attract Georgia high school accounting students to CAU. Action Path 3 develops a niche program to attract accounting students to CAU.

Data analysis utilizing PLS-SEM modeling for hypothesis testing and action research paths is conducted. The results reflect that moderating variables LOC, OTE, and SAM impact though not significantly the direct relationship between TPB constructs attitude, subjective norms, and perceived behavioral control and the intention to select accounting as a major. While intervention activities did not convert students, it did improve their perception of accounting. The finance career pathway cluster available to Georgia high schools provides an opportunity for CAU to work with the high school community. A faculty-led study abroad program that contributes to accounting skills, heritage connection, and international exposure may attract students to CAU.

Contributions to the body of knowledge include providing evidence-based knowledge to improve the number of accounting majors, moderating variables and intervention on the TPB, contextual

knowledge, and social intersectionality knowledge. I have become a better practitioner, scholar, teacher, and person because of this action research study.

DECLARATION

This thesis is submitted in fulfilment of the requirements for the degree of Doctor of Business Administration at the University of Liverpool, United Kingdom. I assert that this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also assert that this thesis has not been previously or concurrently submitted, either in whole or in part, for any other qualification at the University of Liverpool or other institutions.

I am most grateful to my husband, Leonard, my girls, Lindsey, Leslie and Leah for your support and encouragement during my DBA journey. Thanks, girls for staying engaged and appropriately giving me a dose of my medicine.

To my parents, Leon (deceased) and Marjorie Jones for always believing in me.

To my brother, Nathan, for checking on me.

Above all, thanks to my Lord and Savior, Jesus Christ, who causes everything to work together for my good.

Acknowledgment

I want to thank Dr. Mark Loon for his guidance, support, and encouragement throughout my thesis work. His comments and feedback were appreciated and added value to my work. My colleagues Dr. Crystal Hudson and Dr. John Young at Clark Atlanta University for being members of my critical action learning set.

Table of Contents

List of Tables

List of Figures

List of Abbreviations	
AAA	American Accounting Association
AACSB	Association to Advance Collegiate Schools of Business
ACAP	Accounting Career Awareness Program
AICPA	American Institute of Certified Public Accountants
ATT	Attitude Beliefs
ATTA	Likelihood Accounting provides outcome
AVE	Average Variance Extracted
CAU	Clark Atlanta University
CIEE	Council on International Educational Exchange
CMA	Certified Management Accountant
CPA	Certified Public Accountant
CVT	Control Value Theory
DBM	Discouraged-Business-Major
FFM	Five-Factor Model
GA	Georgia
HBCU	Historically Black College or University
I	Importance of referent's opinion
IFDS	International Faculty Development Seminar
IFRS	International Financial Reporting Standards
IMA	Institute of Management Accountants
IO	Importance of outcome
IOATTA	Importance of outcome x Likelihood accounting provides outcome
IPC	Internality, Powerful Others, and Chance
IRB	Institutional Review Board
IRS	Internal Revenue Service
ISNA	Importance of referent opinion x referent attitude toward accounting

List of Abbreviations Continued	
LOC	Locus of Control
LOCCT	Locus of Control Chance total score
LOCIT	Locus of Control Internal total score
LOCPT	Locus of Control Powerful others total score
MIS	Management Information Systems
MSI	Minority Serving Institution
NABA	National Association of Black Accountants
OTE	Openness to Experience
OTET	Openness to Experience total score
PBC	Perceived Behavioral Control
PLS-SEM	Partial Least Squared Structural Equation Modeling
SAM	Situational Achievement Motivation
SAMT	Situational Achievement Motivation total score
SCCT	Social Cognitive Career Theory
SDT	Self-determination Theory
SN	Subject Norm
SNA	Referent's attitude toward accounting
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
US	United States
VIF	Variance Inflation Factor
VITA	Voluntary Income Tax Assistance

CHAPTER 1

INTRODUCTION

Chapter 1: Introduction

Thesis Title

A critical analysis of the impact of perception intervention on the selection of accounting as a major at Clark Atlanta University

1.1 Background

Accounting is described as the language of business. The accounting profession, therefore, serves as a provider of information for readers of financial statements to make informed business decisions. It is important that universities understand the duty they have in attracting students to the accounting academic major and preparing the students for the responsibilities of the profession. Furthermore, Clark Atlanta University (CAU) has the opportunity to steer African American students who continue to be underrepresented (Ross and Traub 2008), to a profession that provides job opportunities, a variety of career paths, recession resistance, life-work balance, and favorable earnings. Studies (Cohen and Hanno 1993, Allen 2004, and Tan and Laswad 2006) have examined the influences on students selecting accounting as a major; however, there is a dearth of studies rooted in theory that have investigated the role of locus of control, openness to experience, and situational achievement motivation on the intervention on the intention to select accounting as an academic major from an African American perspective.

The purpose of this study was to examine what contributes to the influences for selecting an accounting major and how to plan actions to impact those influences. The Theory of Planned Behavior (TPB), a social psychological model, provided a theoretical framework for assessing the factors that influence the selection of an accounting major at CAU as well as facilitating an action plan for cycles of action research.

1.1.1 Background of the University

Clark Atlanta University is the result of the 1988 consolidation of Clark College (1869) and Atlanta University (1865). CAU is a historically black college or University (HBCU). The Higher Education Act of 1965 as amended defines the status as "…any historically black college or university that was established prior to 1964, whose principal mission was, and is, the education of black Americans, and that is accredited by a nationally recognized accrediting agency or association determined by the Secretary [of Education] to be a reliable authority as to the quality of training offered or is, according to such an agency or

association, making reasonable progress toward accreditation." Nestled in the Westend Community in Atlanta, CAU is a United Methodist, private, metropolitan, comprehensive, coeducational and research university. Designated as R2: Doctoral Universities – Higher Research Activity by Carnegie, CAU resides as the only private, independent graduate, research institution in the HBCU community. The vision for the university states that CAU will increasingly become a dynamic 21st-century research university of choice for a diverse student body with enhanced student enrollment yields, success, and global marketability. In 2013 the Board of Trustees approved a plan to implement the vision. The Board planned that the vision's outcome would be achieved by committing the University's collective intellectual capital, talent, and resources through distinctive and innovative programs; cutting-edge research, meaningful service experiences; and a supportive university environment. The undergraduate enrollment measured 3,302 for Fall 2017 (CAU 2017).

1.1.2 Background of the School of Business

The school of business, accredited by the Association to Advance Collegiate Schools of Business (AACSB), has a rich history of producing prominent African American graduates. The business school, armed with the slogan of rich history, strong legacy, and global leadership, offers undergraduate degrees in accounting, business administration, and economics, Master of Accountancy and Master of Business Administration. The school of business has had several interim Deans providing leadership since 2012. The Fall 2017 undergraduate enrollment was 727 (CAU 2017).

1.1.3 Background of the Accounting Department

The accounting department faculty consists of three Ph.D.'s, one DBA, one DBA candidate, and one MBA member. The Certified Public Accountant (CPA) license is maintained by three faculty members. The ethnicity of the department is represented by three blacks, one white and two others (CAU 2017). In 2017 the accounting department had 83 accounting majors, which is a 16.16% decrease in accounting students from the 99 students in 2011. Although the department's goal is to represent 20% of business students, the accounting student's representation has hovered around 13%. The department has experienced inconsistencies in attracting and displacing accounting majors. For example, Table 1shows that in the four years beginning 2011, the department displaced three students. Conversely, during the four years beginning in 2012, the department attracted five students. In the following four-year span, the department continued to attract but at a lower number than the

previous year with two students. A one student decrease was found for the four years beginning in 2014. CAU draws African American students from all over the United States; however, students from the state of Georgia represent 34% of the undergraduate (CAU 2017) students.

Table 1: CAU Accounting Enrollment 2011-2017

	Classification				
Year	Freshman	Sophomore	Junior	Senior	Total
2017	27	22	17	17	83
2016	30	12	15	23	80
2015	21	19	17	19	76
2014	18	21	16	19	74
2013	21	21	19	16	77
2012	14	21	15	17	67
2011	22	25	18	34	99
CAU Trend Reports 2011 - 2017					

Prior studies (Cohen and Hanno 1993, Allen 2004, and Tan and Laswad 2006) utilized the cognitive-based TPB (Ajzen 2005) during periods of decline of accounting majors to determine the impact of a student's intention to select accounting as an academic major. Currently, the American Institute of Certified Public Accountants (AICPA) reports that from 2011 to 2015 universities experienced a 7% increase in accounting majors and expect to continue this increase.

1.2 Introduction of the Theory of Planned Behavior (TPB)

The premise of the TPB is that intention to exercise a particular behavior is based on three constructs: the attitude toward the behavior, the attitude of subjective norms, and the perceived behavioral control toward the behavior. More specifically, a person's intention toward a behavior is influenced by their beliefs regarding the likelihood that the behavior would lead to the desired outcome (personal beliefs), by their beliefs related to the normative expectations from social influencers (referents), and by their beliefs about the presence of factors that may encourage or deter execution of the behavior (control) (Ajzen 2005). The TPB is also useful in understanding the factors for an intended behavior to plan an intervention to alter the behavior.

The aim of this study is the specific problem that CAU faces regarding the 23% decrease in accounting majors from 2011 to 2015 (CAU 2016) while other Universities have experienced a 7% increase (AICPA 2017) during the same period. To investigate the workplace problem, the following hypotheses are offered for examination: H1: The direct relationship of attitude, subjective norm and perceived behavioral control to intention is moderated by locus of control (LOC). H2: The direct relationship of attitude, subjective norm, and perceived behavioral control to intention is moderated by openness to experience (OTE). H3: The direct relationship of attitude, subjective norm, and perceived behavioral control to intention is moderated by situational achievement motivation (SAM). These hypotheses are examined with a TPB framework through a critical action learning set modality of action research.

1.2.1 Introduction of Locus of Control

How people view the events that occur in their lives can provide insight into their activities. The interpretation of the LOC score suggests whether a person believes that the events in their lives are controlled by internality, powerful others, and chance (Albert and Dahling 2016). The measured LOC can assist with developing intervention activities that are more susceptible to students to change their intended behavior.

1.2.2 Introduction to Openness to Experience

The personality trait, OTE, helps elucidate the notion that individuals with a high score tend to exhibit creative thought, enjoy diversity, and are self-aware. Conversely, individuals with lower openness to experience scores present with a tendency toward compliance and orthodoxy (O'Boyle et al. 2015). Understanding an individual's willingness to new thoughts and encounters contribute to planning intervention activities that may alter an intended behavior.

1.2.3 Introduction to Situational Achievement Motivation

Behavior enacted by achievement motivation as described by Brunstein and Heckhausen (2018) suggest that the behavior engages competition with a code of excellence. The enacted behavior, however, may be displayed inconsistently. The researchers suggest that achievement motivated behavior may be shown differently, given different situations. The display of SAM provides an influential connection to selecting a career (Brunstein and Heckhausen 2018). Therefore, individuals who measure with high SAM may be more likely

to modify an intended behavior given intervention activities that fuel their motivation for achievement.

1.3 Thesis Hypothesis

The TPB framework establishes the three constructs leading to an intended behavior. Students possess a list of outcomes that they can judge the likelihood that an accounting major allows them to achieve the outcome. Students have referents whose approval or support contribute to the selection of an accounting major. The two constructs work in concert with the student's perceived encouragement toward or deterrence from a major in accounting. LOC sheds light on the source of the student's beliefs and produces the following hypothesis:

H1: The direct relationship of attitude, subjective norm, and perceived behavioral control to intention is moderated by locus of control.

Second, OTE guides the extent a student may be agreeable to a new perspective on an intended behavior. Hence this study propositions the following hypothesis:

H2: The direct relationship of attitude, subjective norm, and perceived behavioral control to intention is moderated by openness to experience.

Third, students that are driven by SAM may adjust their intended behavior if there is an increased knowledge of the attributes of an accounting major that stimulates their desire for achievement. Consequently, this study hypothesizes:

H3: The direct relationship of attitude, subjective norm, and perceived behavioral control to intention is moderated by situational achievement motivation.

The thesis model is shown in figure 1.

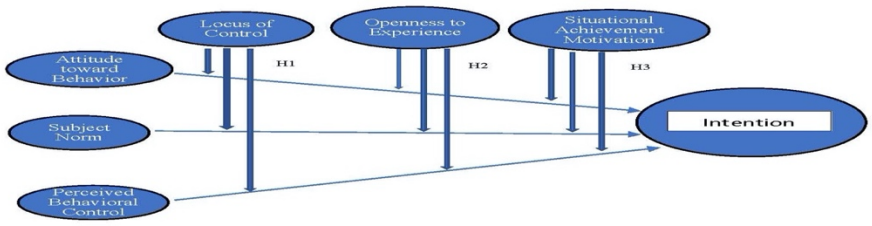

Figure 1: Thesis Model

1.4 Overview of the Methodology

Because of the sample size and the ability to include unobserved or latent variables, the partial least squared structural equation modeling (PLS-SEM) was determined to be the best suited methodological tool to explore the TPB framework (Mbawuni and Nimako 2015). A brief narrative of the key components (sample, research instrument, and statistical analysis) is provided in the following sections.

1.4.1 The Sample

The participants of this study were students in the personal finance course, which is required for all university students. The course is the only compulsory course for all university students housed in the business school. It is designed for 1st-year students. Ethics approval was granted from the University of Liverpool DBA ethics committee. Additionally, an application was submitted to the Institutional Review Board (IRB) at CAU, and approval was given to survey university students. The professors for the personal finance courses posted the Qualtric survey link on Canvas, the university's learning management system.

1.4.2 The Research Instrument

Class time was given to students to complete the electronic survey that was posted in the Canvas course. The participation information outlined that participation was voluntary and that student anonymity would be maintained. The TPB survey was adopted from Cohen and Hanno (1993), Allen (2004), Tan and Laswad (2006) and Mbawuni and Nimako (2015). The survey also included background factors and questions related to LOC, OTE, and SAM. The

students were given a pretest, and upon participating in intervention activities were asked to take a post-test. The research tool and its development are delineated in Chapter 3.

1.4.3 Statistical Analysis

PLS-SEM was deemed most appropriate to analyze data given the distribution-free assumption characteristic and the predictive implications of the study. Furthermore, the modeling can accommodate smaller sample sizes. The PLS-SEM analysis was performed using SmartPLS 3.2.8 (Ringle et al. 2015).

1.4.4 Action Research

The critical action learning set modality was used to assess, plan, implement, and evaluate a collaborative action to address the decline in accounting students at CAU. Figure 2 describes how the data from the pretest survey contributed to the intervention activities. The critical action learning set based on literature and experience when constructing the problem perceived that the decline in students necessitated an action beyond converting existing CAU students to the accounting academic major to enhance the strategy. Because some students select an academic major before starting at a university, an action research cycle was employed to establish a relationship with local high schools. The TPB collected the student's experience with accounting in high school. The AICPA report (2017) indicates that the selection of accounting as an academic major has increased; therefore, an action research cycle to attract local accounting students to CAU was deemed an imperative supplement by the critical action learning set. Likewise, the action learning set noted the need to establish a niche program to recruit local and national accounting students. The moderating variables inform niche programs students may find attractive.

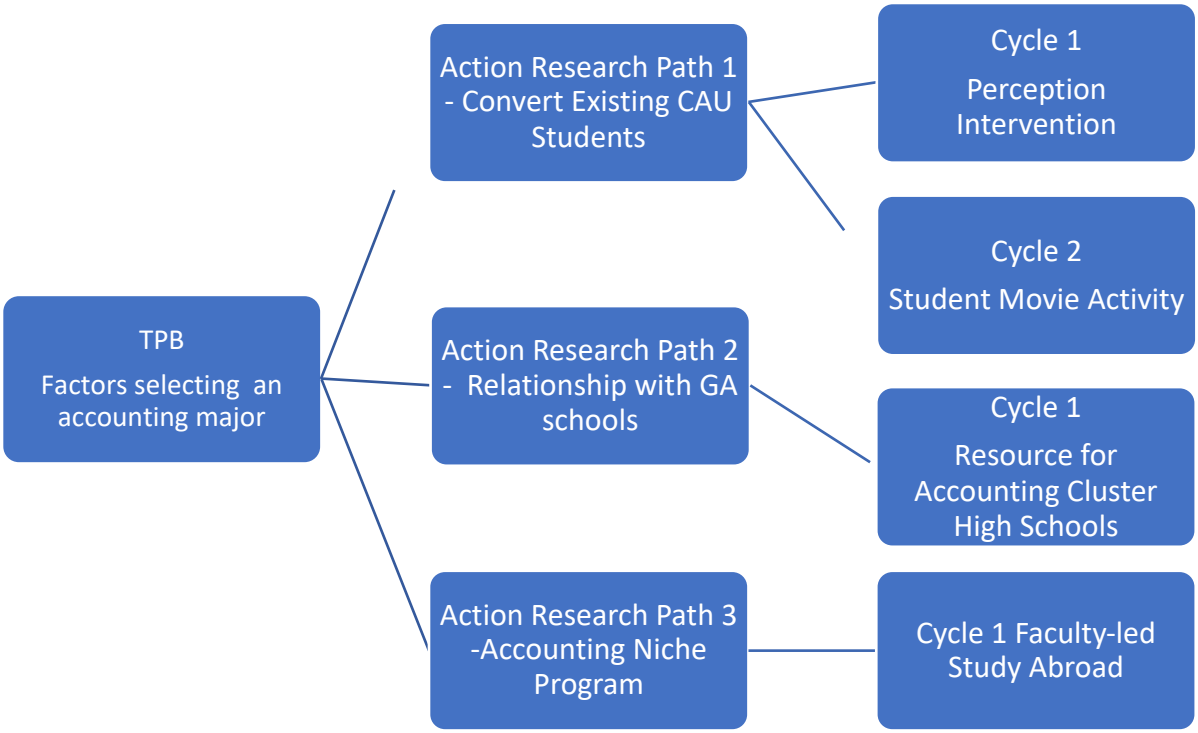

Figure 2: Hypothesis Testing Complement to Action Research

While the action research paths are linked by the hypothesis testing, much of the study focuses on converting existing non-accounting CAU students to the accounting program. The enrollment at CAU has increased over the last few years (CAU 2017), and the existing students have already selected CAU to provide their higher education. Furthermore, changes in the University curriculum in 2016 provides more opportunity for students to take exploratory courses. Should freshman and sophomore students find an interest in accounting or feel that accounting may be a more appropriate academic major, they can take the Principles of Accounting I course without a hindrance to their matriculation. Therefore, for the action element of the study, Paths 2 and 3 complement Path 1 and Path 1 feeds Paths 2 and 3 as depicted in Figure 3.

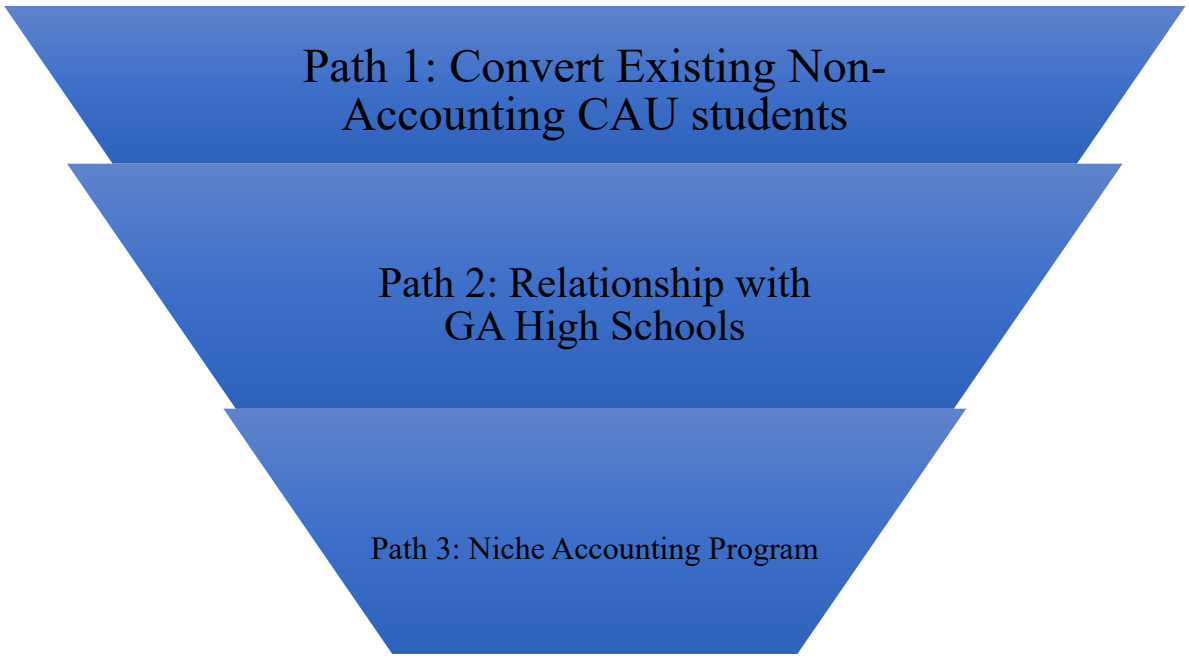

Figure 3: Action Path Funnel

1.5 Contributions of this Study

The contributions of this study cover four areas. First, it provides a means for CAU to use actionable knowledge to improve the number of accounting majors. The evidence shows that intervention activities improved the perception of accounting and increased the student's knowledge regarding the accounting profession. The evidence also shows that CAU can serve as a resource for local high schools that participate in the state's Finance Career Cluster Pathway. The accounting department, along with CAU's recruiting team, has an opportunity to target the Georgia Finance Career Cluster schools. The faculty-led study abroad program for accounting and finance students has become a point of engagement for existing and potential students. Informal conversations during advisement and campus tours suggest that an accounting study abroad experience is inspiring for accounting students.

Second, the study adds to the literature related to moderating variables and intervention on the TPB. The TPB, as presented in the literature, has been an effective tool for developing intervention plans to alter behavior. However, the moderating variables provided more insight into the type of activities in which students would respond.

Third, the study provides an African American perspective regarding the attitudes about the accounting profession, the influence of referents, the perceived behavioral control that

encourage or deter the selection of an accounting major. What is unknown is the urgency or reluctance of the University to act on the information. The context of the study is higher education where there has been a shift from a practice of faculty and subject centeredness to student-centered initiatives (Elez et al. 2017). Contemporaneously, business schools which train business professionals to respond to changes in the market, are often slow to follow the practice (Aleong 2018). While enrollment is critical to manage in higher education, it should not be at the expense of the students. The action research study was student focused on capturing their perspectives and provided information that would allow them to assess for themselves if accounting would be appropriate to meet their learning and career needs. The actionable knowledge from this study is sustainable and should yield a measurable increase in the future (Deaver 2018) should the business school continue the cycles.

Finally, the study adds to the literature regarding social intersectionality. The history of the term intersectionality, which was originally used to describe Black women (Weaver et al. 2016) connects with this study. How multiple social identities intertwine influences attitudes, perceptions, behaviors, and experiences. As discussed in Chapter 6, the Scholar/Practitioner Reflections, the positive and negative experiences as a result of my gender, race, and socioeconomic status have shaped my passion for introducing accounting to underrepresented groups. Additionally, understanding how students' social identities interact in the selection of an accounting major and the potential workplace experience provides insight to universities and the profession for recruiting African American accounting majors.

1.6 Limitations

Although the personal finance course is designed for 1st-year students, a good portion of the students were upperclassmen. The effectiveness of the intervention may be understated, given the classification of the students. The anonymity of the students prevented the opportunity to follow up with students who became interested in accounting after the intervention. Class time was not available to allow students to complete the posttest in class. This contributed to the attrition from pre to post-test.

1.7 Overview of Subsequent Chapters

The remainder of the thesis is organized as follows:

Chapter 2 provides a comprehensive review of the pertinent literature and includes a general focus on the influences of selecting an academic major. The study utilizes the TPB; therefore, studies with the TPB framework in selecting a major and providing behavior

intervention are discussed. Additionally, LOC, OTE, and SAM are explained. The literature review also informs the action research cycles.

Chapter 3 delineates the methodology used with the collection of data for the TPB pretest and posttest of the personal finance students. The pretest data influence for the intervention activities is shown. The critical action learning set contribution and the collaboration efforts for the three concurrent cycles of the action research are also depicted.

Chapter 4 describes the findings of the data collection and analysis, including the PLS path model estimation and the assessment of both reflective and formative measures from action research Path 1. The chapter comprises the effects from the pretest to the posttest. The findings for action research Paths 2 and 3 are also discussed.

Chapter 5 provides the discussion, actionable knowledge, and contributions to knowledge from the study.

Chapter 6 presents the Scholar/Practitioner journey. Accounts of encounters with work colleagues and personal reflections are described to demonstrate the development and learning gained for doctoral work. The conclusion of the study is presented.

CHAPTER 2

LITERATURE REVIEW

Chapter 2: Literature Review

2.1 Introduction

Chapter 2 discusses the key theoretical underpinning of this study, develops the hypotheses for the quantitative aspect of the research and informs the action research. The action research cycles are described in Chapter 3. Section 2.2 focuses on the specific issues faced by Clark Atlanta University, while Section 2.3 discusses the profile of students with business majors. Section 2.4 contains an overview of the Theory of Planned Behavior followed by the application of the theory to accounting majors, the utilization of the theory in the intervention of behavior, moderators that impact the theory and the influence of the theory in action research. The factors that contribute to selecting a major are delineated in Section 2.5. Attracting students to accounting programs is discussed in Section 2.6. In Section 2.7, the development of action research strategies is delineated. Finally, Section 2.8 concludes the literature review discussion.

2.2 Background to Clark Atlanta University

As an Assistant Accounting Professor, Undergraduate Accounting Program coordinator and CPA, I have an opportunity within my professional practice as a professional educator to assist the accounting department with actionable knowledge to address the continued decline in accounting majors. Beyond the progressive growth in accounting majors, I expect to facilitate at CAU; I anticipate a widened perspective of the educator's role, influence on institutional policies and the reshaping of the landscape of student support to emerge from this study. As a practice, the Business school prepares students to excel as global leaders and to ignite and respond to corporate change (CAU 2019); however, as academicians, in my experience at CAU, we fail to practice those skills in governing the academy. Consequently, I see myself as a transformation agent equipped with scholarly research, experience, and a desire to improve personally to address an issue that is detrimental in an environment that demonstrates bureaucratic and resistant to change.

This chapter reviews literature pertinent to Clark Atlanta University's problem regarding the 23% decrease in accounting majors from 2011 to 2015 (CAU 2016) while other Universities have experienced a 7% increase (AICPA 2017). Upon review of research methodology and theory, the accounting studies that target the influential factors in the selection of a major comprise five main non-mutually exclusive categories: studies from psychological theory; studies contemplating the importance of identified factors on the process of academic major

decision making; studies assessing the time period of academic major selection; studies addressing the impact of the 150-hour requirement; and studies evaluating gender and ethnic effects (Simons et al. 2003). For this study, the context of the problem made it important to investigate several paths of research: social psychology (TPB as a framework for behavior intention and intervention), locus of control, openness to experience, situational achievement motivation, factors impacting students' choice of an academic major, race and ethnic influence on the decision-making process, and gender perspective on major selection.

Clark Atlanta University's School of Business offers a Bachelor of Arts degree in Accounting. The Business School does not require any additional application process once accepted to CAU. The accounting curriculum entails 24 hours of major classes, which includes Intermediate Accounting I and II, Cost Accounting, Accounting Information Systems, Individual Tax, Business Tax, Advanced Accounting, and Audit (CAU 2018). The state of Georgia requires 30 semester hours of accounting and a Bachelor of Arts degree (120 hours) to sit for the Certified Public Accounting (CPA) exam (AICPA 2018). Individual states administer the uniform exam, award license, and monitor license renewal. Completing the undergraduate accounting program at CAU provides students with the credentials to sit for the CPA exam in the state of GA. The 150 credit hour rule requires 30 hours beyond a Bachelor's degree to satisfy the educational component for CPA licensure.

Additionally, CAU offers membership to the National Association of Black Accountants (NABA) student chapter, Institute of Management Accountants (IMA) student chapter and participation with the Internal Revenue Service (IRS) Voluntary Income Tax Assistance program (VITA). In a study completed by Herrington and Arnold (2013), the Principles of Accounting I course was the only business course required in the curriculum for 100% of the Business Schools surveyed. Collectively, the accounting experience at CAU, consistent with the purpose of business schools, contributes to the student's scholarly, personal, and communal growth (Hay 2008).

The literature presented in this review examines the components and characteristics that impact the decision-making process for selecting an accounting major for over 25 years. Research regarding the selection of accounting as a major is presented during the period of decline in accounting majors, 1994 through 2006 and during the recent recovery period beginning in 2010 (Allen 2004, Chen et al. 2005, Hartwell et al. 2005, Jackling and Keneley 2009, Sugahara et al. 2008, Tan and Laswad 2006, Ahmad et al. 2015, Byrne et al. 2012,

Churchman 2013, Dalci 2013, and Djatej et al. 2015). Australian Universities appear as one of the few to have experienced growth in accounting majors during the years of decline (Sugahara et al. 2008) the increase, however, was primarily due to an influx of international students.

The following table lists the accounting studies based on perspectives and characteristics.

Table 2: Accounting Literature Perspectives and Characteristics	
Perspective/Characteristic	**Study**
Nationality	Sugahara et al. 2008, Geyfman et al. 2015, Dalci et al. 2013, Jackling and Keneley 2009, Ahmed et al. 2015, Law and Yuen 2012, Tang and Seng 2016, Malthus and Fowler 2009, McDowell et al. 2012, and Mbawuni and Nimako 2015
Ethnicity	Myburgh 2005 and Daly 2005
Year of Study	Allen 2004, Dalci et al. 2013, Porter and Woolley 2014, Hartwell et al. 2005, Chen et al. 2005, Chen et al. 2008, Byrne and Willis 2005, Byrne et al. 2012, Janvrin et al. 2009, Malthus and Fowler 2009, McDowall et al. 2012, Mbawuni and Nimako 2015, Hunt et al. 2017, Wells 2015, Nelson et al. 2002, Mauldin et al. 2000 and Geiger and Ogilby 2000
Gender	Law and Yuen 2012 and Geyfman et al. 2015

While consistent results among studies prove prevalent, the noted discrepancies in results between studies attributed to the diversity of the comparison groups. Therefore, the current review first examines the broad perspective of components that influence business majors globally with a transition to focused literature studies (Allen 2004, Tan and Laswad 2006, Law and Yuen 2012, Geyfman et al. 2015, Leppel et al. 2001, Gabre et al. 2015, Yang et al. 2012, James and Hill 2009, Ibrahim et al. 2013, Daly 2005 and Young et al. 2018) regarding the academic decision-making process for gender, African Americans, and accounting majors.

2.3 Background of Students with Business Majors

The countries China, UAE, UK, and the USA are examined in the work of Davies et al. (2016) to assess the premises for selecting a business major from a global perspective. In the study of the four countries, the authors conclude that the impetus for selecting a business major summarizes in five stimuli categories: views of the standard of living for the field of study, fair accessibility of the major, prestige consequences, career productivity, and growing

skill sets. The standard of living provided by choosing a business major and the opportunity to develop skill sets ranked at a high level of importance for selecting a business major across all four countries while the other three stimuli categories presented differences across the four countries.

Gender plays a role in the selection of a business major. For example, the business school student population at CAU is predominately women (CAU 2016), yet they remain underrepresented in the business community. The accounting profession is consistent with the business field and continues to represent a male-dominated profession (AICPA 2017). Even in developing economies such as Hong Kong have shown more advancement as women in Hong Kong are more likely to select an accounting major than men (Law and Yuen 2012). Geyfman et al. (2015) study the role of gender on the factors critical to freshmen students studying business. The authors found that skill sets focusing on measurement and business acumen influenced the decision to major in business. Referents, interest in business, salary potential, and employment opportunities contribute to the decision in selecting a business major. Of the factors that influence freshman students to select a business major, only abilities and salary potential affected males and females differently. Female students reported less certainty than males in their calculable skills, whereas male students were more concerned about salary potential than females in selecting a business major.

Furthermore, Geyfman et al. (2015) note that the lack of representation of women in business did not impact a female student's decision to major in business. Males, in the Geyfman et al. (2015) study, make up 60% of the business students in the business school, and accounting represents 23% of the majors. Given an area where the ratio of males to females is fairly equal, New Zealand female high school accounting students still believed that males represented the bulk of accountants in the profession (Malthus and Fowler 2009). Leppel et al. (2001) note that professional fathers provided influence for female students when selecting a major.

Given the focus of African American students by the business school at CAU, the underrepresentation of African American students in the discipline of accounting (Yang et al. 2012) necessitates attention. The study by Yang et al. (2012) examines the racial impact on adolescents and interest in accounting. The authors found that interest in accounting display greater in African Americans adolescents than Caucasians. The disparity in the number of

African American accounting majors compared to Caucasians; however, does not support that Caucasians have a greater interest in accounting (Yang et al. 2012).

The compendium for business majors suggests that although US students ranked the impetus for selecting a business major from most important to least as career productivity, growing skill sets, standard of living provided, prestige consequences, and fair accessibility (Davies et al. 2016), there are similarities in the basis for selecting a business major that expand culture and nationality. Female business professionals are underrepresented in practice; however, the lack of visibility does not prevent female students from pursuing a business degree. While there is an inadequate representation of African Americans in business, they demonstrate an interest in business.

Hence the literature suggests consistencies in the stimulus for selecting a business major regardless of student nationality. Additionally, female business students may feel challenged by the skills required for business studies, and African American students are equally interested in business subject matter as Caucasians.

2.4 Theory of Planned Behavior

The social psychology review investigates the TPB – the conceptual framework underpinning this study. Currently, the theory of planned behavior serves as an effective and widely used framework for the study of human action (Ajzen 2008). The theory of planned behavior expands the theory of reasoned action (TRA) (Ajzen and Fishbein 1980) by addressing the impact of behavioral control as a determinate for the intention of a behavior. The theory of planned behavior subscribes to three premises that steer human behavior: perceptions regarding the likely outcomes or characteristics of the behavior (behavioral beliefs), perceptions regarding the social expectations of other people (normative beliefs), and perceptions regarding the existence of factors that preclude acting on the behavior (control beliefs)(Ajzen 2008).

Given the particulars of each premise, behavioral beliefs yield positive or negative dispositions toward the behavior; normative beliefs foster an anticipated social pressure referred to as subjective norm, and control beliefs lead to perceived behavioral control denoted as perceived comfort and hardship of carrying out the behavior (Ajzen 2008). The theory, as described by Ajzen (2008), proposes that individuals fulfill their intention of behavior upon opportunity given an appropriate level of actual control over the behavior. Thusly, the precursory activity to behavior is the intention. Events exist that cause hardship to

carry out the behavior, therefore, shrinking the willingness of control, prompting the necessity to factor perceived behavioral control along with intention (Ajzen 2008). In other words, the perceived behavioral control provides an envoy to the actual control and adds to the expectedness of a specific behavior up to the level of realistic opinion formed by the individual regarding the hardship of completing the behavior.

Ajzen (2008), in a study examining the perceived behavioral control construct of the theory of planned behavior, discusses locus of control on behavior. The notion that perceived behavioral control over consequences represents internal locus of control and consequences driven by nonbehavioral (task demands or other's actions) elements represent the external locus of control presents a deceitful concept. In essence, perceived control relating to a consequence or activity resides independently of the internal or external locus of elements that drive them (Ajzen 2008). For the theory, perceived behavioral control falls within the scope of executing a behavior based on possessing the necessary resources and incapacitating hardships to perform the behavior. The source of the resource or hardship, internal or external, appear as a non-factor to performance or nonperformance of the behavior.

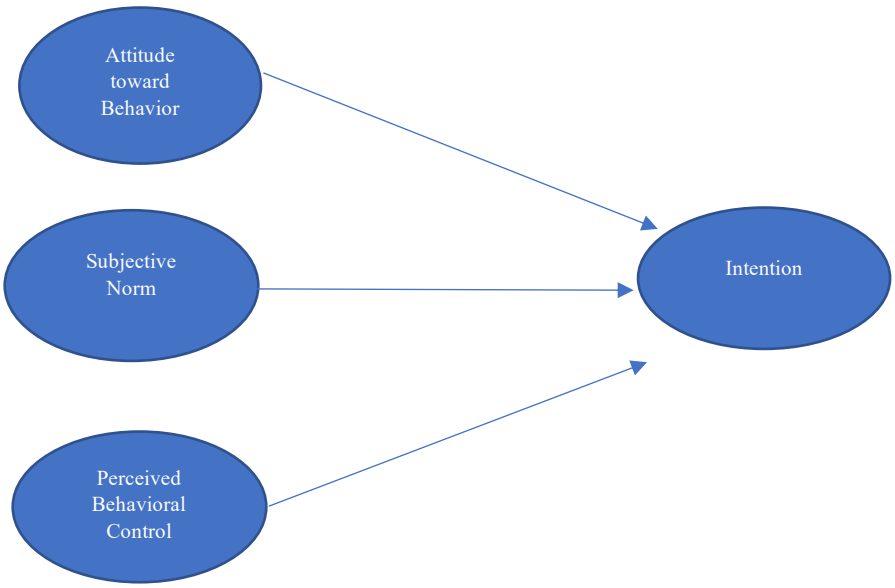

Figure 4: Theory of Planned Behavior (Ajzen 2008)

2.4.1 Theory of Planned Behavior and Accounting Majors

The theory of planned behavior has been utilized to examine the impact of selecting accounting as a major and the behavior of accounting students. Cohen and Hanno (1993) developed a pretest to derive the critical outcomes linked to the choice of a major. The pretest provided the test instrument to evaluate the attitudes, subjective norms, and perceived control beliefs related to selecting accounting as a major. Allen (2004) utilized the framework to study how the image of accounting diminished the attraction of high-achieving accounting majors considering the 150-credit hour requirement. Mbawuni and Nimako (2015) examine job-related and personality forecasters of intention to select a career in accounting. Dalton et al. (2014) study the influences that determine audit or tax career paths. Ferratt et al. (2010) use an extension of the TPB to discuss the factors that form the attitude for a major. Students from a Cambodian university in the introductory accounting course who displayed a favorable perception to select accounting as a major did not change their intention in light of the workload or poor performance in the course, substantiating a premise of the theory (Tang and Seng 2016). In the study conducted by Churchman (2013), students possessing a favorable attitude toward the accounting profession displayed more intent to select accounting as a major. The subject norms from the same study proved statistically significant to the intention to select accounting as a major; however, perceived behavioral control did not.

Djatej et al. (2015) utilize the TRA framework – the precedent to TPB – to explore the relationship between behavioral scales and behavioral intentions when selecting accounting as a major; however, the researchers substitute the TRA constructs with self-efficacy, image, and social influence. The findings confirm that self-efficacy and image beliefs related to the accounting profession significantly contribute to personal interest and social considerations to predict the selection of accounting as a major.

In examining the factors that contribute to the decision-making process for selecting a business major Kumar and Kumar (2013) utilize the theory of reasoned action (TRA) framework and conclude that attitude toward the business major provided the greatest impact to the intention for a business major. The significant factors for attitude are "job availability," "social image," and "aptitude." The referents providing the greatest influence for business majors were family, professors, and high-school counselors.

Alleyne et al. (2014) employ an extended model of the TPB. The findings reveal that attitudes, subjective norms, perceived behavioral control, and moral obligation predict accounting students' intention to participate in unethical behavior at a significant level. In the Ariff et al. (2010) study, TPB constructs provide a significant influence on entrepreneurial intention where perceived behavioral controls provided the greatest level of influence on intention. Furthermore, the effort level of entrepreneurial tasks mostly influenced the intention.

Given the previous studies, the TPB provides a useful framework for examining the components that lead to the intention of selecting accounting as a major.

2.4.2 Theory of Planned Behavior Moderators

The Theory of Planned Behavior allows an assessment of the factors that contribute to the intention of a target behavior. The constructs normative beliefs, subjective norms, and perceived behavioral control all provide a tendency for an intended behavior. There are also constructs that can change the strength or direction of the relationship of the constructs (Hair et al. 2016) in the TPB. The moderating variable is a third variable that affects the correlation of two (independent and dependent) variables. Locus of control, openness to experience and situational achievement motivation have been identified as impactful to the relationship of independent variables normative beliefs, subjective norms and perceived behavioral control to the dependent variable of the intention of behavior.

2.4.2.a Locus of control

Locus of control, a personality trait, describes the source in which an individual believes dictates the events in her life (Halpert and Hill 2011). Rotter (1966) and Halpert and Hill (2011) report the roots of locus of control theory stem from Bandura's Social Learning Theory which postulates that affirmation via rewards or nullification through penalty exist for all noticed and modeled behavior. Based on the belief that an individual's life is primarily controlled by outside influences (external) or primarily self-influenced (internal), locus of control spans the external and internal boundaries. For instance, internals experiencing success on an exam link the success to their own efforts. Externals, on the other hand, would link a lack of success on an exam to incompetent instruction or an unfair exam.

Suffice the sentiment that students possessing an internal locus of control demonstrate a higher inclination to seek achievement compared to students possessing an external locus of control. Therefore, locus of control presents influential to the direct relationship between the

constructs of attitude, subject norm, and perceived behavioral control and an individual's behavior.

As described by Levenson (1981), the concept for locus of control traces to Julian Rotter, who designed a 23-item unidimensional scale geared to assess internality or externality as a personality trait. Reconceptualizing Rotter's scale, Levenson designed a scale detailing the external factors regarding chance and powerful others. Therefore, Levenson internality, powerful others, and chance (IPC) scales differentiate three components: internality, powerful others, and chance. Levenson IPC scale is better suited for this study than Rotter's scale because Levenson utilizes a five-point Likert rating rather than a forced choice design, and students evaluate their own experience rather than the general population. Additionally, Levenson IPC items present unambiguous, subscales maintain conformity, and social desirability bias is minimal.

Much of the literature presented in this study provides a cultural approach when evaluating the components for selecting an academic major. Mueller and Thomas (2000) study the locus of control from cultural perspectives. The authors found that entrepreneurs, a viable career path for accounting majors, with internal locus of control, were more prevalent in individualistic cultures than collectivistic cultures. Thomas (2009) found that high school students seeking self-employment display internal locus control believing they would dictate their destiny. Additionally, African Americans students from the study were less likely to pursue self-employment as a career.

Kirdok and Harman (2018) determined that Turkish high school students with an external locus of control experience a higher level of lack of information, inconsistent information struggles, and career choice difficulties than students with an internal locus of control concerning the career decision process. In other words, incognizance of careers or dissonant critical information facilitated students with an external locus of control to encounter a greater challenge in the career decision-making process. The subcategories of incognizance of careers and dissonant critical information further revealed that students inclined with an internal locus of control experienced less vacillation in the decision-making process than students with an external locus of control because of the use of logical decision-making approach.

Hadsell (2010) evaluates the contribution of locus of control on the results of student learning and the enjoyment for economics. Locus of control was found to render a negative

contribution with the pursuit and enjoyment of the economic course. Students inclined more externally rated lower interest.

Mbawuni and Nimako (2015) found a nexus between familiarity with accounting, locus of control, and the intention to select a career. In the study, the selection of a career choice directly related to the student's perceived locus of control. Djatej et al. (2015) conclude that students' locus of control regarding the technical skill required in accounting contributed favorably to the selection of accounting. However, soft skill self-efficacy did not contribute to the selection of accounting.

In studying the locus of control of African Americans compared to Caucasians in the Principles of Accounting course, James and Hill (2009) found that African American students anticipated a significantly lower grade than Caucasians. The Social Cognitive Career Theory (SCCT) used in the study by Schoenfeld et al. (2017) determined that higher self-efficacy lead to higher outcome expectations from the benefits of a career as a CPA. Furthermore, when accounting professors understand the nexus of self-efficacy, outcome expectations, and the pursuit of CPA designation, they can use the class experience to contribute to a student's selection of an accounting major and the journey to a career as a CPA.

Locus of control in universal skills expressed in four categories, interpersonal, analytical, information and behavior skills assessed by accounting and non-accounting majors at an Australian university revealed that the decision process of selecting a major in accounting had a relationship with the analytical skill category of self-efficacy (Sugahara et al. 2010). Therefore, the accounting curriculum provided a means to facilitate locus of control in analytical skills exclusively. Experiential learning enhanced self-efficacy in interpersonal, analytical, information, and behavior skills categories.

The literature suggests that locus of control measured by internality, powerful others, and chance contribute to the relationship of TPB variables in understanding the behavior of accounting students. Hence the following hypothesis is offered for study:

H1: The direct relationship of attitude, subjective norm, and perceived behavioral control to intention is moderated by locus of control.

2.4.2.b Openness to experience

Openness to experience, a personality trait included in the five-factor model (FFM) acknowledged as "Big Five" and derived from standardizing theory of clustering personality traits, has distinct elements (Taggar and Parkinson 2007). Costa and McCrae (1992) suggest that individuals with high openness to experience scores tend to display vivid imagination, take pleasure in variety, are in tune with internal thoughts, and flourish phrenic exploration. On the other hand, individuals with lower openness to experience scores display more inclination toward conformism and conservatism. Taggar and Parkinson (2007) support previous literature suggesting that accounting research employ personality and add FFM as an appropriate tool.

Lounsbury et al. (2009) found that business majors rated significantly lower on openness to experience than non-business majors. The finding was not suspected since businesses typically thrive from novelty, change, and globalization. Accounting students, however, may need higher OTE scores to pursue accounting but lower scores to practice accounting in a rules-based environment.

Moghaddam (2011) evaluates the correlations between personality traits and how students who have participated in an internship versus those who have not believe they are academically prepared for internships. Internship considerations were found important since internships for students were identified as a tool for students to learn more about careers in accounting (Byrne and Willis 2005, Byrne et al. 2012). Students open to experience, which also rate as goal oriented and high achievers displayed a higher requirement of the business internships (Moghaddam 2011). Overall, business students believed that internships provided a sufficient vehicle to expose and prepare for careers.

Job responsibility (Byrne and Willis 2005) and the image of accountants in various job settings (Byrne and Willis 2005; Malthus and Fowler 2009) contribute to the academic major decision-making process. Whistleblowing, an activity that can manifest during the course of an accountant performing the normal responsibilities of the job, studied by Francalanza and Buttigieg (2016) examines the impact of openness to experience on the decision to carry out the activity. The authors found the Maltese certified public accountants who would disclose corruption or wrongdoing had a significantly higher mean score for openness to experience compared to non-whistleblowers.

This current study examines openness to experience as a moderating variable; likewise, Hildenbrand et al. (2018) test openness to experience as a moderating variable to transformational leadership and thriving. The authors found that when openness to experience rates high, transformational leadership moves toward employees thriving in the workplace. This may suggest that students with high openness to experience would thrive during their collegiate workplace.

The implication from the literature suggests that OTE effects the relationship of TPB variables on understanding the intention to select a major. Therefore, the formulation of the hypothesis below:

H2: The direct relationship of attitude, subjective norm, and perceived behavioral control to intention is moderated by openness to experience.

2.4.2.c Situational achievement motivation

In this study, situational achievement motivation views the situation of peers, professors, and professionals as a catalyst for student achievement based on Atkinson and Feather's (1966) theory of achievement motivation.

Collins et al. (2004) note that achievement motivation significantly correlates with career choice, further noting that individuals desiring an entrepreneurial career possess a significantly higher achievement motivation rate compared to other professions. Accounting majors pursuing CPA designation have the opportunity to a career as a practitioner entrepreneur.

Mbawuni and Nimako (2015) found that students aspiring to a career in accounting were elevated when other students endorsed the pursuit. The notion of fulfillment, talent, and value that the accounting profession can provide for accountants yields a positive influence on the selection of accounting (Mbawuni and Nimako 2015). Among the influence factors studied by Mbawuni and Nimako (2015), sentiment regarding the accounting profession provided the most notable influence on the selection of accounting as a career path.

A blend of peer, professor and professional situational achievement motivation displayed in an innovative approach to the accounting curriculum which gives students a tincture of accounting careers is the "virtual internship" concept described by Bayerlein (2015). The simulation of working as an intern motivates the students to work together and to utilize situational ingenuity to solve problems (Bayerlein 2015). Situational factor considerations

similar to the ones exercised during the academic major decision process also contribute to the predilection of a CPA to whistle-blow or not. For example, in a study of Maltese certified public accountants, accountants less inclined to disclose corruption or wrongdoing had noticeably higher mean scores in situational factors of "retaliation," "attitude of peers," "expected media attention" and "complications in the process of reporting." Conversely, "ethical considerations" and "professional requirement" situational factors ranked noticeably higher for accountants more inclined to disclose corruption or wrongdoing (Francalanza and Buttigieg 2016).

Gerszewski's (2016) study determines the role student motivation and achievement emotions play on the factors that lead to the selection of accounting as a major by utilizing control value theory (CVT) of achievement emotions and self-determination theory (SDT) frameworks. In this longitudinal study of students in the introductory accounting course, the author determines that during the initial testing given at the beginning of the semester, the CVT of emotions model proved a significant predictor for the selection of accounting as a major for accounting majors and non-accounting majors. Value, one of the five variables of CVT, emerged as the most significant indicator to the prospect of selecting accounting as a major by both accounting and non-accounting majors. The CVT of emotions model maintained the predicting status at the 2nd testing, given at the end of the semester.

The SDT model was also found to be a significant predictor for the selection of accounting for accounting and non-accounting majors at the initial testing. Competency, relatedness-instructor, and external regulation appeared as significant indicators to select accounting as a major. The second testing reveals autonomy and amotivation as significant indicators of selecting the major. The more students – accounting and non-accounting - valued the introductory accounting course at both intervals, the more probable accounting becomes the selected major. Likewise, non-accounting majors at the beginning of the semester who enjoyed the course during the semester indicated a greater chance of selecting accounting as a major.

While the situational factors vary among studies, the literature suggests that situational factors related to achievement motivation impact the relationship between TPB and the behavior of accounting students. Therefore, a third hypothesis is presented for study:

H3: The direct relationship of attitude, subjective norm, and perceived behavioral control to intention is moderated by situational achievement motivation.

2.4.3 Theory of Planned Behavior and Behavior Intervention

As noted in this review, the theory of planned behavior serves as a means to explain and predict various behavior; however, the theory also provides opportunities to intervene on behavioral intentions and behavior (Ajzen 2005). The theory-based intervention seeks to penetrate one or more of the three behavior's theoretical constructs of attitudes, subjective norms, or perceived behavioral control. More specifically, the attempt to change students from a non-accounting major to an accounting major would utilize activities or information that make attitudes toward the desired behavior more favorable, elevate the perceived social pressure for the desired behavior, and or heighten the student's perceived control over changing to accounting. A change in intention and behavior plan would incorporate altering the behavioral, normative, and control beliefs or generate new beliefs that guide toward the target behavior. Overall, the design of the intervention should address two directives, (1) change the prior circumstance of intentions that impel the behavior, and (2) removal of obstacles to the targeted behavior.

Armitage and Talibudeen (2010) implemented an intervention regarding condom use for teenagers. The intervention included both experimental and control intervention materials. The experimental group consisted of interviews with three question groups targeted to alter attitude, subjective norm, and perceived behavioral control. Dominant themes were generated from the interviews to provide messages that addressed the responses. In contrast, the control group was provided historical information. The results of the study revealed that the participants not only ranked the experimental intervention more favorable, but the experimental intervention also effectively altered intention via subjective norm.

Bamberg et al. (2003) construct an intervention to influence bus use. The decision for a particular mode of transportation was deemed a reasoned decision. Therefore, the change to attitudes, subjective norms, and perceptions of behavioral control were feasible. The intervention proposed a prepaid bus ticket. The impact of the intervention was measured by comparing attitudes, subjective norms, perceived behavioral control, and intentions prior to the prepaid bus ticket and after prepaid bus ticket availability. Incidentally, a nonintervention control group was not feasible since all students could receive the prepaid bus pass. The limitation of a control group which the author notes as somewhat common in field studies

reveal a chance that the intervention of prepaid bus tickets may not be the only contribution to the observed effects.

With the TPB framework, Ferratt et al. (2010) developed an intervention to address the decline in Management Information Systems (MIS) majors based on student penchants and anticipated results. Student perceptions that match penchants with anticipated results from MIS deemed the target group. Students unaware that an MIS major could provide the results from their penchants received the label as the most likely converts. The last two categories for intervention include students cognizant of the major and career opportunities but possess no interest in the subject matter, and students with no knowledge of the major and have no interest in the subject. The intervention activities on the continuum from ideal convert to most difficult proselyte include counseling, highlighting subject matter factors, enlighten influential referents, minimize the penalties of changing majors, articulate accurate information about the discipline, and implement strategies to increase interest in subject matter factors.

Given the literature review, the studies prove the TPB as a suitable tool to intervene or alter behavior.

2.4.4 The Theory of Planned Behavior and Action Research

As discussed in the previous section, the TPB can contribute to changing an intended behavior. The theory also can inform action research. The collaborative inquiry to gain actionable knowledge discussed more thoroughly in Chapter 3, has been utilized with the TPB in science education (Vaino et al. 2013). The ability of the TPB to foster action research extends beyond educational studies as demonstrated by action research studies by Flourentzou (2014) utilizing the TPB in evaluating family business succession planning and Alrafi (2007) examining managerial use of information technology. Similar to the use of action research to evoke change in teacher beliefs in the Vaino et al. (2013) study, attitudes of family and non-family members in Flourentzou (2014), and the perception of managers in implementing and utilizing information technology in Alrafi (2007), this study explores the role of action research in producing change in the perception students have regarding majoring in accounting. The beliefs of the students that contribute to selecting an academic major in accounting are analyzed by the TPB.

It is noted from the literature that the TPB provides an appropriate framework for informing the action research cycles in action research projects.

2.5 Factors Considered in Selecting an Academic Major

The ability to modify the trend CAU is experiencing with accounting majors may be enhanced with the identification and understanding of the factors students contemplate when selecting an academic major. Many of the factors can be categorized based on exogenous and endogenous characteristics. Additional factors are presented for a comprehensive study of the process in selecting an academic major.

2.5.1 Exogenous factors

The exogenous factors identified in the literature that support the selection process for an academic major are derived externally. For the selection of a major, they seem to center around job availability, career progression, and compensation offerings. The source of the exogenous factors may provide stakeholders of the accounting profession with an opportunity to penetrate these factors to attract accounting majors.

2.5.1.a Job opportunities and career advancement opportunities

Job opportunities proved the most impressive factor in choosing a major for the non-accounting majors when compared to accounting majors (Allen 2004). Chen et al. (2005) determined that accounting and non-accounting majors share similar requirements for job market expectations. On the other hand, Dalci et al. (2013) found that Iranian accounting students placed more emphasis on factors related to the job-market than non-accounting majors. Business majors in the introductory accounting courses from a college and two universities provided the sample for Allen (2004). The students from Chen et al. (2005) represented business students from different level business courses. Both of the studies represent US institutions. Dalci et al. (2013) like Allen (2004) sample the introductory accounting course. Dalci et al. (2013), Allen (2004) and Chen et al. (2005) represent students from large universities.

The three racial groups - Asian, Black, and White – represented in Myburgh's (2005) study all ranked accessibility of job opportunities as the most imperative consequence of a career in accounting. Quality job opportunities influenced the selection process for accounting majors from an Australian University (Jackling and Keneley 2009). Grubb et al. (2006) note that the majority of accounting students would seek a career at a multinational corporation rather than small-medium enterprises.

Favorable job outcomes were a significant factor for students selecting accounting as a career path (Mbawuni and Nimako 2015). Given the wide range of employment opportunities available to accounting students, the career path is a consideration when selecting a major. The first hurdle is usually determining a path of public practice which typically suggests a desire to seek CPA status or industry in which a certified management accountant (CMA) designation may be applicable. Within public practice is the additional contemplation of a Big 4 public accounting firm (Deloitte, KPMG, E&Y, and PWC) or a lower tier public CPA firm. Using TPB, Bagley et al. (2012) concluded that students who were more interested in pursuing employment at a Big 4 firm had more favorable beliefs about the firms because of the firm's prominence and capacity to provide greater training and career advancement.

The results from Churchman (2013) indicate that indexes for attitude norms for accounting majors who favor public accounting careers were different for high and non-high achieving accounting majors. Durocher et al. (2016) note that CPA firms utilize firm websites to convey the firm's commitment to purposeful work, career development, service activities, and firm diversity to attract millennial students. Yusoff et al. (2011) noted that accounting students believed that public accounting was the primary career path for accountants, and without a clear understanding of other career paths, they deemed limitations on accounting job opportunities.

The notion that accounting careers reside restricted to auditing and taxation jobs prompted the American Accounting Association's Pathways Commission to recommend strategies to expose qualified students to the divergent careers available in accounting (Behn et al. 2012). A narrative of careers and responsibilities are described in section 2.5.1.c.

Factors centered around the aspects of career – availability, growth, salary, prestige – rated among the top influencers for selecting a major. Interest in the subject matter, however, rated highest as an influencer (Walstorm et al. 2007). A related study of African American accounting and finance students noted that career-oriented factors specifically occupational growth, potential salary outcome, and career development, rather than subject matter interest, served as the greatest influences for major selection (Young et al. 2018).

Implications from the literature review suggest that job availability and advancement contribute significantly to the selection of a major. However, accounting students may not be aware of job and advancement opportunities.

2.5.1.b Salary

A high initial salary proved statistically significant when selecting a major for the non-accounting major (Allen 2004). Chen et al. (2005) found that accounting majors ranked initial salary higher in importance than non-accounting majors. The two studies differ in the matriculation stage of the students. In a study of students representing accounting, non-accounting, and non-business majors during undergraduate and graduate matriculation stages, accounting students perceived that extrinsic consequences were realized more from majoring in accounting than non-accounting majors perceived their majors would provide (Porter and Woolley 2014).

Accounting majors in an Australian study noted the ability to earn a high salary as an influential factor to select accounting as a major (Jackling and Keneley 2009). Monetary benefits did not contribute significantly to the intention to major in accounting for students in a Hong Kong University (Law and Yuen 2012). Given the low salaries for accountants in Cambodia, extrinsic expectations do not affect the decision to choose accounting and yields a negative relation between career expectations and selecting accounting as a major for non-accounting majors (Tang and Seng 2016).

Long-term earnings reported similar importance to non-accounting majors and accounting majors (Chen et al. 2005). Expected earning potential provides a basis for a major selection; however, students utilize a classification process to assess their belief in possessing the appropriate capabilities to execute the coursework for the major (Arcidiacono et al. 2012). Hartwell et al.'s (2005) study of high school students noted that business majors and non-business majors were both most influenced by a potential salary amount in making a career choice.

Given the literature review, the studies are inconclusive regarding the role of salary in the choice of majoring in accounting.

2.5.1.c Job Responsibilities

High school students intending to major in accounting, in business, or non-business perceive that an accounting degree provides variety in work and is a path for President or CEO of a company, or a business consultant (Hartwell et al. 2005). Studies (Yusoff et al. 2011, Mbawuni and Nimako 2015, and Dalton et al. 2014) reveal student awareness of varying

career paths for accounting majors, but they may not possess knowledge of the vast careers and associated job responsibilities in the accounting profession.

Accounting and Finance students at CAU are encouraged to join The National Association of Black Accountants (NABA). The NABA website (2018) provides a comprehensive description of job responsibilities for accounting career paths. A website designed for African American students allows students in accounting or interested in accounting to clearly understand the vast paths in the profession. For example, the nine career paths and job descriptions provide a context for this study. Tax Accountants assess tax and financial planning opportunities, prepare tax returns, and research tax issues. Cost Accountants measure and allocate production and overhead costs. Auditors attest to the fairness and reasonableness of financial statements after the analysis and inspection of supporting documentation. Financial Analysts prepare budgets and forecasts to plan for the future and review operating results. Management Accountants analyze costs, budgetary, forecasting, tax, and systems and procedures accounting functions. Supervisory duties and special reporting may be required. Educators teach the theory and practical aspects of accounting. Internal Revenue Agents audit tax returns for compliance with tax laws that were in effect at the time the return was prepared. Forensic Accountants investigate a party's finances to determine whether the reported income or assets is truthful and accurate. Certified Public Accountants (CPA's) perform any and or all of the above. In addition to passing the CPA examination, certain educational and experience requirements must be met.

The descriptions listed above from the NABA website are consistent with the accounting concentration courses provided for accounting majors. Unless a student has had previous exposure to careers in accounting, an awareness of the responsibilities of the accountant may prove difficult in contributing to the academic major process.

The literature review suggests that students may be aware that various careers exist in accounting but are not knowledgeable regarding what they are or the associated responsibilities.

2.5.2 Endogenous factors

The internally driven factors for selecting an academic major may provide less opportunity to control than externally driven factors but understanding them is equally important. The sapience gained from endogenous factors may lead to opportunities to influence or trigger

changes to core beliefs. Ultimately the study of endogenous factors that contribute to the academic major selection process proves important to accounting investors.

2.5.2.a Intrinsic Motivation

The study conducted by Byrne et al. (2012) noted that the job satisfaction indicator scored highest among students pursuing accounting, considering accounting, and not pursuing accounting. Chen et al. (2005) noted that during the academic major selection process, non-accounting majors placed more importance on intrinsic elements than accounting majors. For Iranian students, Dalci et al. (2013) found that accounting and non-accounting students place similar value on intrinsic factors when selecting a major. Likewise, Malaysian students report that intrinsic values provide the greatest influence for predicting a career in accounting (Ahmad et al. 2015). As the importance of intrinsic consequences increased, the likelihood of selecting accounting as a major decreased for accounting, non-accounting, and non-business students during various stages of undergraduate and graduate matriculation (Porter and Woolley 2014).

Accounting students who choose career paths in audit versus tax value the responsibilities of the job in distinct ways (Dalton et al. 2014). High school students who intend to major in accounting, in business, or neither, believe that a major in accounting provides work that is challenging (Hartwell et al. 2005). Students studying at universities in Hong Kong report higher intrinsic regard led to a greater chance in selecting accounting as an academic major or minor (Law and Yuen 2012).

When compared to Caucasians, African American students displayed a higher presumption that a major in accounting could address their greater demands from a career (James and Hill 2009). More specifically, when assessing a match between values and belief, African American students expressed a greater agreement of values and belief than Caucasians.

In light of the literature review, the studies are inconclusive to whether accounting majors value intrinsic motivations more than other business majors.

2.5.2.b Pre-requisite Skills

Non-accounting majors did not think they had the skills and math capacity to be successful in accounting (Allen 2004; Tan and Laswad 2006 and McDowall et al. 2012). Studies show that students select a major based on the successful display of skills in subject-specific

introductory courses (Arcidiacono et al. 2012 and Bartolj and Polanec 2012). Students perceive that the accounting major requires more challenging skills than some other business majors (Allen 2004 and Tan and Laswad 2006). Asian and white students in Pretoria noted that the difficulty in meeting the qualifications for the university's accounting program as the primary negative consequence of pursuing accounting certification for accounting majors (Myburgh 2005). CAU does not require a separate application to the business school. The accounting profession requires software literacy to communicate with clients, prepare tax returns, conduct audits, and analyze data. Hung et al. (2015) note that freshman accounting students lacked a working knowledge of general software programs (Microsoft - Word, Excel, Access - Project Management software, and multimedia process software).

Asarta and Butters (2012) discuss the decision for students to select a less competitive path for an academic major. Discouraged-Business-Major (DBM) (Asarta and Butters 2012) represent economic majors who shift from a more rigorous curriculum in the college of business to less rigid standards in the college of arts and sciences. The results indicate that the students that shifted represented a small amount. The implication that students that switched were not discouraged – they possessed acceptable entrance requirements and University performance – but may have wanted a more comprehensive and divergent educational experience. CAU implemented a new curriculum in 2016 that provides room in the plan of study for accounting students to explore more classes (CAU 2018).

To gain acceptance to higher educational institutions, Universities establish criteria for students to demonstrate general skills that suggest an ability to matriculate successfully. Churchman (2013) found that there was not a significant difference in the factors that contribute to the selection of accounting as a major between high achieving accounting majors (students invited to honors program or college upon acceptance to the university) and non-high achieving accounting majors. Compared to non-accounting business programs, accounting programs have maintained quality but have declined in appeal to compete for high-quality students (Madsen 2015). Skill level as displayed by Iranian students was not significantly different for accounting and non-accounting majors when selecting a major (Dalci et al. 2013).

Madsen (2015) suggest that students in accounting programs typically possess adequate academic skills but display inadequate soft skills. The high school students surveyed by Hartwell et al. (2005) would major either in accounting, business, or non-business. All three

groups viewed themselves as relishing being with other people, at ease with written communication, innovative in thinking, and comfortable with verbal communication. Of the three groups, accounting majors expressed the greatest enjoyment of math. Mbawuni and Nimako (2015) found improved intention to select accounting when job requirements (individual effort, skill, and competence) were perceived favorably by students.

The current enrollment of college students at CAU represent Generation Z, individuals born after 1995; however, Ibrahim et al. (2013) determined that millennial African American accounting majors compared to other business majors display higher regard for investigative assignments. There was also a significant difference between accounting majors and other business majors regarding the convenience of the class and the workload required outside of class. Accounting majors had a lower regard for those features. Additionally, these millennial African American accounting students possessed a lower need to meet with the instructor than other business majors. Comparisons of millennials and Generation Z are not readily available given the nominal literature on Generation Z college students.

Creativity can serve as a skill indicator for selecting accounting as a major. Sugahara et al. (2008) note that creativity and nationality of the students in an Australian University impact the decision to major in accounting. Australian students with a high level of creativity, for example, were less likely to choose accounting as a major whereas Chinese students studying at the university possessed lower levels of creativity and were more likely to select accounting as a major. Similarly, Cambodian students selecting accounting appeared less creative than non-accounting majors (Tang and Seng 2016). This may suggest that students who are less creative are attracted to accounting.

In the discussion of pre-requisite skills, the literature provides a flow of skills from hard skills that deal more with technical competence to soft skills which focus more on people, social, and communication skills. The level of both hard and soft skills contributes to the selection of an academic major. Furthermore, the degree of creativity students possess impacts the academic selection process.

Implications from the literature review indicate that comfort level of prerequisite skills contribute to the selection of a major.

2.5.2.c Interest

Djatej et al. (2015) found that students with a personal interest in accounting also displayed an intention to major in accounting. Studies (Djatej et al. 2015, Hung et al. 2015 and Swain and Olsen 2011) suggest that the personal interest in the accounting subject matter is connected to the learning style of the students. Accounting freshmen surveyed by Hung et al. (2015) demonstrated a high level in Sensing and Visual learning style preferences. Professor intentionality to accounting activities that balance the creative presentation of facts may improve the interest in accounting. Students who select accounting as a major and pursue an accounting career are represented by Sensing and Judging personality characteristics (Swain and Olsen 2011).

Furthermore, the study notes that a higher favorable attitude for and a higher intention to major in accounting expressed more by Sensors compared to other personality traits. Students from an Australian University expressed an interest in accounting topics, and fulfillment with working accounting problems contributed profoundly to the selection of accounting as a major (Jackling and Keneley 2009). New Zealand secondary accounting students possess a greater interest in accounting than non-accounting students (McDowell et al. 2012).

A summary of the literature review implies that interest, coupled with learning styles, can impact the selection of an accounting major.

2.5.3 Time Commitment

The State of Georgia, like most states in the USA, require 150 credit hours for CPA licensure. The additional 30 credit hours to the 120 Bachelor of Arts credit hour rule is to facilitate an astute entry level accountant to practice accounting (AICPA 2018). Studies by Albrecht and Sack (2000) and Barsky and Catanach (2001) note that because of the additional hours and challenges of securing the resources for the additional courses, the 150- hour requirement constitutes an impediment to potential students and brings about anxiety for students. A later study confirms that the cost of the additional year of education to satisfy the 150 rule has a negative impact on selecting the accounting major from non-accounting majors (Allen 2004). Boone and Coe (2002) use archival data to connect and explain the 150-rule to the decline in accounting majors. However, the 150-rule continues to exist during the current incline in accounting majors

Chen et al. (2005) study note that the benefits to cost ratio (a sum of the students' assessment of the benefits of becoming a CPA and the sum of the students' assessed cost of becoming a CPA) measures higher for accounting majors compared to non-accounting majors. Students with the chance of accounting courses in high school recognized a superior level of gain than those without a high school accounting experience. However, the cost recognition of accounting offered no difference between the two groups (Chen et al. 2008). The cost of becoming a CPA measured by responses to minimal time to relax in early years, requirements to qualify as a CPA, low initial salary and dull image compared to the benefits of becoming a CPA denoted by challenging work in initial years, advisory role to businesses, credibility of position and path to executive positions vary based on the student classification.

For example, Chen et al. (2008) found that sophomores in an earlier stage of the accounting experience, tend to view the benefits of an accounting major more favorable and viewed the costs of accounting significantly lower than the longer matriculating seniors. Whereas graduate students within the Federation of Schools of Accountancy expressed a "very high level of support" opinion for the additional effort to complete the 150-hour requirement (Nelson et al. 2002).

Although the American Institute of CPAs (AICPA), the largest member association dedicated to the accounting profession in the world, trend of increased accounting majors is favorable to the profession, there remains a limited number of African American CPAs (AICPA 2017). Gabre et al. (2015) note that African American females, when compared to African American males, were less likely to seek CPA license. The majority of African American students satisfying the 150- rule still did not complete the CPA process. However, the majority of accounting graduates from private Historically Black College and Universities ultimately earned a CPA license. Private universities that are non-HBCU are the next in preparing African Americans for success in passing the CPA exam. Gabre et al. (2015) findings may suggest completing the CPA process is more related to economics rather than race. Black students in Pretoria noted cost as the greatest barrier to certification for accounting majors (Myburgh 2005).

In the selection of accounting as a major, the student must consider the additional time needed to reach the increased hour requirement for CPA licensure. Contemporaneously, the accounting student must contemplate the cost associated with the 150-hour requirement. The

tuition cost for 30 more hours and the opportunity cost of delaying full-time employment may prohibit a student from majoring in accounting.

The literature review indicates the cost of becoming a CPA as a barrier for entry into the accounting profession. Given the continued cost of becoming a CPA and the recent increase in accounting majors, future research may provide more insight.

2.5.4 Referents

The contribution of the referent influence spans a wide spectrum. Regardless of the role of people referents, parent, advisor, counselor, friend, classmate, or professional, the referent influence necessitates consideration during the academic major selection process. Referents can also encompass media or institutions. Therefore, the medium for providing information for making major decisions prove important to the process.

2.5.4.a Individuals as Referents

Parental input provided a significant influence on the decision process to select an accounting major (Cohen and Hanno 1993, Law and Yuen 2012 and McDowall et al. 2012) and the pursuit of an accounting career (Myburgh 2005). Additionally, Byrne et al. (2012) noted that parental referents render impactful influence for students pursuing accounting, considering accounting, and not pursuing accounting while accounting instructors only contributed to those pursuing accounting. College professors provide a favorable influence on the selection of accounting as an academic major (Mauldin et al., 2000; Albrecht and Sack, 2000). Djatej et al. (2015) conclude that the favorable perception of referents contributed to both with the student's appeal to accounting and the intent to pursue accounting. Byrne and Willis (2005) found that for high school students in Ireland, studying accounting, credible news sources, and teachers provided the greatest levels of influence of perception for those in accounting courses.

In New Zealand, accounting high school teachers view accounting as a desirable career; however, the career advisor views a career in accounting as second-rate (Malthus and Fowler 2009). High school career guidance counselors, guest speakers, friends, nor relatives provided impactful influence in the selection of an accounting career (Byrne et al. 2012). On the other hand, parents, family members, accounting teachers, and career counselors influenced the major selection process for high school students in New Zealand (Malthus and Fowler 2009). Dalci et al. (2013) study focused on Iranian students noted that accounting

and non-accounting majors differed in the influence of referents (parents, teachers, peers, and career advisors) in the selection of a major.

Conventional recruiting tools, described as instructors, career counselors, print and video material, varied in the level of influence for People of Color (described as Hispanics, Native Americans, and African Americans) compared to Whites and males compared to females when evaluating an academic major (Daly 2005). The material provided by Universities, corporate media, and career guides were viewed as more important factors for selecting a major for females compared to males (Daly 2005). This suggests that People of Color are more influenced by individuals providing professional career guidance, and females rely more on recruiting material guides.

Incidentally, Daly (2005) also notes that People of Color valued opinions of career advisors and professors more than Whites. The reliance on career advisors and professors for People of Color appear consistent with African American students since referents at HBCUs tend to provide support to students regarding career decisions. There continues to be an insufficient number of accounting role models in the African American community; however, accounting professional with a CPA or accountant family member were more likely to pursue CPA status (Gabre et al. 2015).

Based on the literature review, the studies suggest the importance of people referents; however, they are inconclusive regarding which people referents provide influence.

2.5.4.b Referent Other

Contrary to other studies, Jackling and Keneley (2009) identify the government as an influential referent in the selection of accounting as a major since the Australian government increases the points towards permanent residence when international students acquire skills that fill shrinking professions. The government also becomes an influential referent for students majoring in accounting in Cambodia because students have an opportunity to receive a scholarship for majoring in accounting (Tang and Seng 2016).

Walstorm et al. (2007) noted that the top five sources of academic major information for business students from greatest to least are university and department website, major specific brochures, non-university websites, newspaper articles, and television/movie characterizations. A later study by Young et al. (2018) found that African American accounting and finance students top five sources of information regarding academic major

selection ranked greatest to least non-university websites, university/department website, invited speakers, online job listings, and presentations by alumni.

Janvrin et al. (2009) study how freshmen and sophomore students and accounting majors (juniors and seniors) evaluate websites for information regarding career paths in accounting. The websites included AICPA and 11 state CPA societies based on various categories of information available to students. Students assessed sites based on technical adequacy, subject quality, specialized subject matter, and web design. Both groups freshmen and sophomore students and accounting majors ranked subject quality first then web design as the website qualities as most beneficial in providing information regarding a career in accounting. While the students found the websites though not equally, appropriately provide comprehensive information to make informed decisions for a career in accounting, prior to the study, students were unaware that the websites were available.

The implications of the literature review reveal that media referents influence the decision to select a major.

2.5.5 Image and Perception

There remain some students who view the accounting profession as humdrum, modest (Allen 2004) and a confined occupation (Behn et al. 2012). Byrne and Willis (2005) found that the belief that accounting represents a routine, banausic, precise, and rules-oriented career resonated among Irish high school students. Secondary accounting students from an Australian study displayed a significant difference regarding boring factor and compliance driven when compared to non-accounting students (McDowall et al. 2012). High school students in New Zealand who studied accounting could accurately describe the functions of accountants and expressed a less negative image of the accounting stereotype whereas the students who had not studied accounting described the job function of accountants negatively and inaccurately (Malthus and Fowler 2009).

Because of the unfavorable view of accounting and accountants, the Pathway Commission of American Accounting Association (AAA), the largest association of accountants in academia, formed an objective to strengthen the perception of accounting. Favorable images of the accounting profession appear to grow as students matriculate. For example, freshmen accounting students had a more favorable perspective of accounting than non-accounting majors, and senior accounting students possessed a favorable perspective of the accounting profession (Malthus and Fowler 2009).

Although the accounting profession regulated by state and association codes of conduct (AICPA 2015), the industry experienced breaches to codes of conduct with discreditable acts regarding Enron, Worldcom, Parmalat in addition to other national and local firms (Byrne and Willis 2005). Mbawuni and Nimako (2015) found that perceived discreditable acts did not significantly influence the selection of accounting. While students did not demonstrate an impact from discreditable acts, the students showed that favorable reputations of accounting professionals influenced the intention to select an accounting career. However, Djatej et al. (2015) found that an unfavorable image of the accounting profession hindered the interest in accounting. Hunt et al. (2011; 2017) found that accounting majors' source of forming favorable perspectives of accountants, from greatest to least, stemmed from knowing accountants, accounting courses, movies/television, and news reports.

The portrayal of accountants in movies and print media contributes to the image of the profession and the affirmation of certain stereotypes. Friedman and Lyne (2001) examines the "beancounter" stereotype. The study implies that the beancounter perception illuminates less among accounting professionals; however, society continues to perpetuate the image. The various references of beancounter include boring, authentic, stiff, immaterial, detrimental, short-termism, and cost focus. Although the implication of beancounter references usually display a negative connotation, they could display as advantageous presented in the appropriate accountant role. For example, Richardson et al. (2015) present accountant stereotypes: Bookkeeper classified as scorekeeper (positive reference) and beancounter (negative reference) and Accountant classified as guardian (positive reference) and entrepreneur (negative reference). The study provides different levels of stereotypes, high, moderate, and low for ethics, sociable, skill, and service dimensions for the classifications.

In a later study of the role of accountants in movies, Dimnik and Felton (2006) determined that the behavior of the characters reside within five conventions: Dreamer, Plodder, Eccentric, Hero, and Villain. The Dreamer convention, primarily portrayed as an optimist in drab jobs with minimal authority and the Plodder, primarily portrayed as a hardworking pessimist confined in a low-level job with minimal influence make up most of the accounting characters portrayed. The study further notes more visibility of women and minorities in the portrayal of accountants.

Not to be outdone by movies, Smith and Jacobs (2011) examine the stereotypes of accountants depicted in popular music. A taxonomy of the songs reveals that popular music characterizes accountants as a tax person, money handler, facilitator of drama, and the profession as a tool to suppress. Overall, the authors found the characterization of accountants and the profession as negative. The accounting lyrics from popular music can impact the attitudes and behaviors regarding accounting.

Byrne and Willis (2005) point out that high school students acknowledge high societal regard for the accounting profession; the students noted several other professions in higher regard. Similarly, New Zealand secondary accounting students recognize the societal status of accountants while non-accounting students acknowledge a higher status for other professions (McDowall et al. 2012). Accounting student's overall reaction to accountants differed significantly in comparison to finance, management, information management, and non-business majors (Hunt and Intrieri 2011). Conversely, Iranian students did not weigh the perception of the accounting profession as a contributing factor to selecting a major for accounting and non-accounting majors (Dalci et al. 2013).

Despite the progress that has been made in the portrayal of accountants in various media outlets, there continues to be a need for intentionality in the depiction of accountants. The effort extends beyond an accurate interpretation of the characteristics and job responsibilities of the accountant. It also requires that women and minorities are represented in a white male-dominated profession.

Review of the literature suggests that students form their images and perceptions from many sources. The consequences of the sources are inconclusive regarding selecting an accounting major.

2.5.6 Compulsory Education

High schools in the United States cover grades 9-12 (DOE 2018). While there are legislation and oversight with the US Department of Education Federal agency, the Tenth Amendment requires that most education policies occur on the state and local levels. Students from the state of Georgia represent 34% (CAU 2017) of the undergraduate CAU university population. The state of Georgia administers a Finance Career Cluster Pathway which offers courses in Advanced accounting and Business accounting; however, the local district has to opt to provide the curriculum to the students (GADOE 2018).

Studying accounting begins at the high school level in Ghana and Ireland (Mbawuni and Nimako 2015, Byrne and Willis 2005 and Byrne et al. 2012). While accounting, generally not a standard high school course in the US, Hunt et al. (2017) conclude that students with an opportunity to study accounting in high school were more likely to decide to major in accounting upon entering college. Conversely, Law and Yuen (2012) study of Hong Kong students note that exposure to accounting in high school did not significantly influence selecting accounting as a major. In the same way, Malthus and Fowler (2009) found that many of the New Zealand high school students who studied accounting did not plan to pursue a major or career in accounting.

Another study by Hunt and Intrieri (2011) found that the early years of college was the period for students to select a major with the majority of accounting students deciding their major before college. Hartwell et al.'s (2005) study of high school students disclosed that students began contemplating a college major before starting high school with most deliberating a major by senior year. Likewise, Myburgh (2005) notes that the majority of principles of accounting students in Pretoria selected a major during grades 8-11. A negative consequence of New Zeland, high school students' early exposure to accounting, reflected in the narrow perspective of accounting formed from the classroom experience (Wells 2015).

High school accounting may prove less beneficial to the success in the Principles of Accounting course for a diverse student population with jurisdiction-specific instruction (Crawford and Wang 2014). The results from Chen et al. (2005) show that the two primary elements, participation with an accounting course in high school and engagement in the principles of accounting course, detail how students select accounting as a major. The intersection of the sophomore year and the 1st accounting class yielded the optimal time for selecting accounting as an academic major (Nelson et al. 2002; Mauldin et al. 2000; Geiger and Ogilby 2000). The implication that during the 1st year before the 1st accounting course may provide the greatest opportunity to influence selecting accounting as a major. The curriculum study plan at CAU outlines the Personal Finance class as a 1st-year course and Principles of Accounting in the 2nd year.

Business programs at HBCUs have responded to this trend by engaging African American high school students with business and campus experiences. The University of North Carolina Central sponsors a 10-day residential program where students are taught by University professors and work with business leaders to solve a business case (Deaver 2018).

CAU offers a 10-day program MBA camp where both middle and high school students are trained by university professors and develop their own business (CAU 2018). The accounting profession has responded to the trend by partnering with high schools and accounting programs (Prather-Kinsey 2017 and Pluviose 2015). For example, NABA in partnership with the AICPA Foundation and local state CPA societies offers an Accounting Career Awareness Program (ACAP), a one-week residency program targeting African American high school students to learn about accounting careers while living on various college campuses.

Students are selecting academic majors as early as the freshman year in high school. This means the introduction to the field of accounting must start sooner than the college years. Additionally, the first impression of accounting that is often in a high school bookkeeping class can either educe an interest in accounting or repel the subject completely.

Given the literature review, the studies note both positive and negative outcomes for selecting an accounting major when accounting courses are taken in high school.

2.5.7 Experience of 1st Accounting course

The amount of transactional accounting presented in the principles of accounting course serves as a deterrent to the selection of accounting as a major (Cohen and Hanno 1993 and Allen 2004). Additionally, it is noted that a student's adverse experience in the first accounting course contributes to negative impressions of accounting and hinders the likelihood of pursuing accounting (Stice et al. 1997).

Performance in the 1st accounting course provides insight into the selection of an accounting major (Chen et al. 2005) and the pursuit of an accounting career (Myburgh 2005). However, Dalci et al. (2013) in the study of Iranian students found no difference between accounting and non-accounting majors evaluation process of the 1st accounting course and selecting a major. Similarly, students in universities in Hong Kong were not discouraged from majoring in accounting based on inadequate performance in the principles of accounting course (Law and Yuen 2012). Crawford and Wang (2014) study students in the Principles of Accounting course over four successive years found that students with mathematics skills from high school or previous academic success or a combination of both performed significantly better than those without high school mathematics or high school academic success.

Based on the more favorable attitude toward accounting and the greater intent to select accounting as a major by students with Sensor and Judging personality traits, these students

are more likely to perform at a higher level in the 1st accounting course (Swain and Olsen 2011).

The traditional exordium to accounting for business students is the principles of accounting course. The objectives of the course encompass teaching the fundamental areas of accounting which include the role of accounting in business, the recording of business transactions, the preparation of financial statements, and the careers available in accounting. The achievement of the course objectives by the professor and successful performance in the course could contribute favorably to the selection of accounting as a major.

Based on the literature review, most studies reflect a favorable experience in the 1st accounting class contributes to either the selection of accounting as a major or the perspective of accounting.

2.6 Attracting Accounting Majors to CAU

The study by Fisher et al. (2017) suggests that students select an undergraduate business program based on the value they perceived will be added from matriculating in the program. The researchers further suggest that it is incumbent upon business programs to develop niche programs where students can easily identify the value the specific program would provide to them. Given the growth in accounting majors (AICPA 2017), it may be beneficial for the accounting department at CAU to use a similar strategy to attract accounting students to CAU.

Sergeant et al. (2019) note that accounting programs faced with increasing competition use the Institute of Management Accounting (IMA) student chapter and the Certified Management Accountant (CMA) certification as a means to attract both accounting students and employers to the program. CAU charted an IMA student chapter in 2018, at this time, CAU has not had students complete the process for CMA certification.

One HBCU's accounting program utilizes a blend of traditional and innovative approaches to recruit and retain students in the accounting program (Deaver 2018). An innovative strategy shared by the author was the presentation of an accounting fraud documentary. The true, high profile, municipality fraud case allowed students to see the importance of internal control and audits. Additionally, students were exposed to careers in forensic accounting.

Blanthorne and Westin (2016) study the role of the Voluntary Income Tax Assistance (VITA) program plays in accounting education. The study examines the benefits to students, the

value added to the community, and the student attraction to service learning. Miller and Thalacker (2013) in their study, outline the best practices for developing a successful VITA program for an accounting department.

Studies by Phillips (2018) and Clay (2013) note that some accounting program curriculums are deficient in preparing students for the International Financial Reporting Standards (IFRS) which are tested on the CPA and CMA exams. The Phillips (2018) study presents the insufficiency in teaching IFRS skills at HBCUs. It is also noted that study abroad programs could assist with filling the gaps in the curriculum regarding IFRS. Given the lack of exposure to study abroad for African American students (Esmieu et al. 2016), African American accounting students may be attracted to CAU provided with an opportunity to learn the IFRS skills necessary for the CPA and CMA exams during a study abroad experience.

During this time of growth in accounting majors, the literature suggests that accounting programs should consider niche programs to attract accounting students to their programs.

2.7 Action Research Development

Much of the literature presented in this review provides insight regarding the factors students use to select an academic major in accounting. The TPB, with its intervention attributes, allows action development to alter the perception students have about accounting. Therefore, an action research path (Path 1) arises that would seek to increase accounting majors by converting existing non-accounting CAU students to accounting majors.

Ancillary learning from the literature in this review highlighted that an important consideration to exogenous and endogenous factors in selecting an accounting major is the timing in which students select an academic major. Based on the literature discussed in Section 2.5.6, the optimal time for influencing student perceptions regarding an accounting major may be during the high school years. Both high school students and high school referents would prove as formidable prospects for action planning. Hence, an action research path (Path 2) evolves that would establish relationships with Georgia High Schools to inform and attract accounting students to CAU.

Another consideration, the underlying concern for CAU, is that students are selecting accounting as a major (AICPA 2017); however, students who select accounting as an academic major are not attending CAU. As discussed in Section 2.6, the literature suggests that an accounting program niche could attract accounting majors to accounting programs. As

a result, an action research path (Path 3) emerges that develops a niche faculty-led IFRS study abroad program to attract accounting students to CAU.

2.8 Conclusion

The literature review examines studies that investigate the factors that influence the selection of an academic major. The review then hones the factors specifically related to selecting accounting as a major. The studies extend the United States to consider cultural and ethnic perspectives. The students at CAU primarily represent the African American community, where cultural and ethnic tendencies may blend other cultures and ethnic groups. Additionally, the gender impact is evaluated since the business school at CAU is dominated by females; however, females continue to be underrepresented in business and the accounting profession.

The theory of planned behavior presented in the literature as a viable framework to explain and predict the intention of a behavior. The literature related to personality traits locus of control, openness to experience, and situational achievement motivation suggest that each trait could provide insight into the selection of accounting as a major decision process. The theory of planned behavior also can facilitate intervention. The literature review highlights implications from the researchers represented in the view, but it also indicates studies utilizing TPB to change the beliefs regarding a particular intention of behavior.

The literature review also fueled viable considerations for action research. The identified action research problem is the decrease in accounting majors at CAU, while other accounting programs are experiencing growth. The literature informed three paths of action research for the study.

CHAPTER 3

METHODOLOGY

Chapter: 3 Methodology

3.1 Introduction

Chapter 3 discusses the methodology for the action research conducted in the study. The research aim for the context of action research is described in Section 3.2. In Section 3.3, the cycles and steps of action research are defined. The next Section 3.4 depicts the critical action learning set modality used in the study. The action Path 1 to convert existing CAU non-accounting students to the accounting major entailing two complete cycles is discussed in Section 3.5. Action Path 2 which seeks to attract Georgia high school accounting students to CAU is considered in Section 3.6 followed by Section 3.7 which describes action Path 3 to propose a niche program to attract accounting students to CAU. The conclusion for Chapter 3 is found in Section 3.8.

3.2 Research Aim

The research aim was to investigate my University issue in a collaborative framework with data-driven analysis to understand more comprehensively the influencing factors for students to select accounting as a major and develop internal and external coalitions to address the issue. This action research project employed an inquiry focus that maps the terrain (Ramsey 2014) to inform the action that was needed for the project. The product of problem diagnosis would be to engender new ideas and discover new knowledge that would prove relevant and advantageous to my University, and which may also enlighten other researchers. The issue my University faces presents multifaceted involving several stakeholder groups; therefore, the study followed a critical action learning set action research modality with a three-person practice (Coghlan and Brannick 2014).

The first-person practice allows for personal development and nexus of my role and future at the university. The second-person collaborative process, which includes varying cooperative efforts from department colleagues, student associations, and feeder programs, will promote first-person learning. The results of the first- and second-person practice will produce actionable knowledge for third - person spectators (Coghlan and Brannick 2014). Hence, the tiered approach allows the scholar-practitioner to use research to collaboratively generate actionable knowledge to solve specific workplace dilemmas that may also apply to other audiences.

The hypothesis testing is instrumental in navigating the appropriate action research paths to meet the research aim. It also contributes to the determination of suitable actions to implement.

3.3 Action Research

Action research utilizes an action researcher and organizational stakeholders to enhance the actor's situation by solving real-life problems (Greenwood and Levin 2007). The ability to conduct rigorous and credible first-person and second-person inquest in the present tense is facilitated by action research cycles (Coghlan and Brannick 2014).

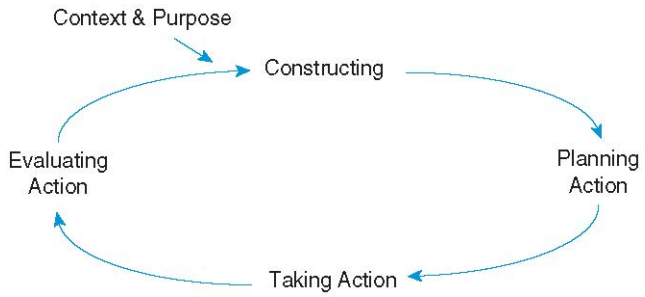

Figure The Action Research Cycle

Figure 5: The Action Research Cycle

Figure 5 reflects the action research cycle. Context and Purpose is the pre-step to the cycle. This step identifies the need for the project, clarity of the expected future state, and the formulation of collaborative associations. Constructing is a collaborative conversation which outlines the sensibility and rationality basis for action. Evolving from context and purpose and construction is the collaborative effort of planning action. Taking action is the cooperative implementation and intermediation of the plan. The evaluation step notes the outcomes of the action and contributes to assessing the necessity of another cycle. Projects may have several action research cycles running concurrently. Furthermore, the action cycles should not present too rigid to hinder creativity and inspiration.

3.4 Action Learning Set

Action learning sets aid with learning related to the issue that needs consideration, learning that develops the researcher and the formation of learning (Pedler 2008). Two colleagues were solicited to participate as action learning set members. Prior interaction with the two colleagues provided the view that they would serve as "fellows in opportunity" (Mumford 1996) exhibiting a willingness to tackle university/departmental issues to enhance the university and to develop personally. The colleagues each have at least 15 years of work

experience as finance practitioners and have been in academia for five years after earning doctoral degrees. Table 3 outlines the credentials of the members. The ground rules for the learning set included confidentiality, commitment, and safety. The learning set decided that learning set discussions would be maintained within the set; however, necessary disclosure for action implementation or personal development was acceptable upon noting the set. Set members were not only committed to attending meetings but also to the attention of each member's organizational dilemma and the nurture of personal and professional development. What appeared to be most important to each set member was the opportunity for safety. The members wanted a safe place to work through issues. The set members thought that meeting off campus would contribute to an ambiance for upholding the ground rules. The members decided to utilize a meeting review worksheet to evaluate the progress of the set (Pedler 2008).

Table 3: Education and Experience of Set Members

Member Name	Education	Experience	
		Academic	Practitioner
Dr. Crystal Hudson	Ph.D. (Financial Planning, Housing, and Consumer Economics) University of GA 2012	Tenure Track Director of Financial Planning Program Courses: Financial planning, Real Estate, Securities, Economics	Financial Manager-Advertising Sales, Senior Consult overseeing financial systems. 15 years
Dr. John Young	DBA (Finance) Nova Southeastern University 2003	Tenure Track Courses: Financial Planning, International Finance, Corporate Finance	Planning Manager, Division Internal Control Manager 20 years

As a result of learning set discussions (Phillips, Hudson and Young 2018) and working through a rich picture diagram (Monk and Howard 1998) that assisted with identifying the stakeholders and their concerns, the constructing step of action research suggested that the work-based problem could best be addressed from concurrent cycles. We decided to manage the cycles via three action paths: The dominant focus, (Path 1), seeks to convert existing CAU students to select accounting as a major (Path 2) attract Georgia high school students who are interested in accounting to CAU and (Path 3) provide a niche program for accounting students. The paths and cycles are integrated and concurrent.

Given that the methodology presents as action research cycles, which entail four fundamental steps: constructing, planning action, taking action, and evaluating action (Coghlan and Brannick 2014). The colloquy of the action research learning set during construction allowed for sensemaking and provided the underpinning for the action. The action research learning set defined goals for the action and required accountability that the goals were the driving factor during discussions. The need for change necessitates both first and second order change (Coghlan and Brannick 2014). How the accounting department "sells" the academic major needs to be improved.

On the other hand, engaging high school students (Path 2) and developing a departmental niche (Path 3) requires a different essence for the base suppositions and different techniques of thinking and performing. The plans for the action were collaboratively implemented with appropriate intervention. The action research paths are informed from the literature review, critical action learning set, and hypothesis testing via TPB as depicted in Figure 6.

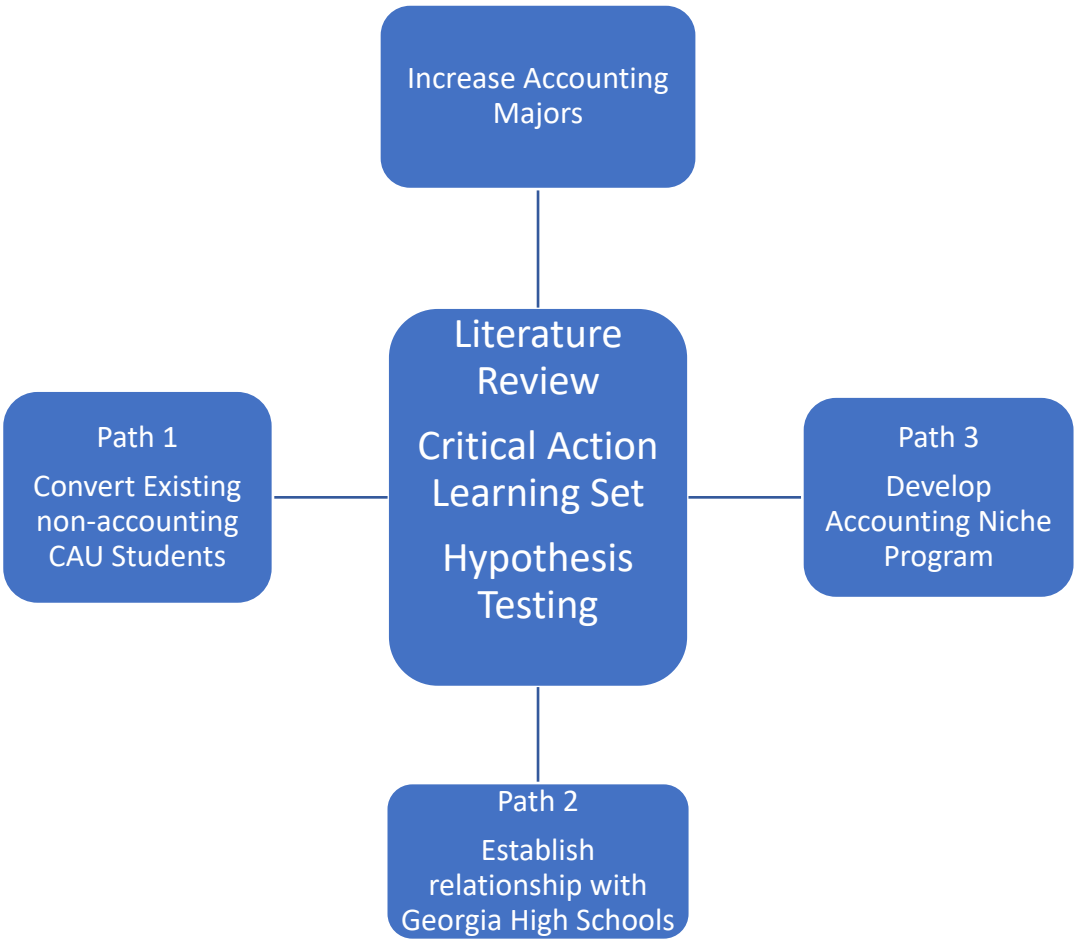

Figure 6: Formation of Action Research Paths

3.5 Path 1 Convert existing CAU non-accounting students

I have a level of autonomy as a professor and the accounting program coordinator to embark on an effort to convert existing CAU non-accounting students to the accounting major. A quantitative study utilizing the TPB was considered appropriate for examining the factors that contribute to selecting an accounting major. An area of concern for the action research learning set regarding collecting data from students was based on each of our experiences and trends regarding student participation in research in the US. The experience with CAU students has been low response rates even with expected incentives (Koskey et al. 2015).

3.5.1 Path 1 Converting existing CAU non-accounting students -Cycle 1

As an insider researcher, it was important to consider consequences that may occur to other departments and schools within the university, given a structured effort to transition a student from other departments to the accounting department. Likewise, insider research necessitates

ethical considerations that include human mutual dependence, the collaborative formation of knowledge, and equitable power relations (Coghlan and Brannick 2014). A more extensive discussion of the ethical considerations and approvals are found in Section 3.5.1.a.2.i. The accounting program's goal is to represent 15 – 20% of the business student population. The percent of accounting majors has fallen below the target range for four of the five years under study (CAU 2016). Additionally, increasing the accounting critical mass could allow the Business school to seek supplemental AACSB accounting accreditation.

While a formal effort to convert existing students within the school of business could prove resistant by the various business school departments, increasing accounting majors based on the total number of business school students is consistent with accounting program's goal sanctioned by the Dean and university administration. Converting students outside of the school of business would present as a different matter. Therefore, the action learning set concurred that the framework provided by the TPB would allow students to assess (1) their attitudes about selecting a major (2) the people who are important to them in the selection of a major and (3) the challenges that may prohibit selecting a major regardless of attitude and the influence of important people. Non-accounting students could assess for themselves if an accounting major were more appropriate to meet their goals.

The thesis model examines the role LOC, OTE, and SAM on the relationship of students' attitude, referents, and perceived behavioral control on the intent to select a major. This provides evidential insight to the type of action or intervention that may yield positive results for changing student perceptions of accounting.

3.5.1.a Path 1 Convert existing CAU non-accounting students – Cycle1: Constructing

Understanding the factors that contribute to the intention of selecting a major would be instrumental in developing an action plan to intervene on the desired intention of selecting accounting as a major. Because I am a certified public accountant and I am aware of the job opportunities, the variety of career paths, the recession resistance attribute, the chance for life-work balance, and favorable earnings afforded to accountants, it is important to me that students are informed regarding accounting when making academic major decisions.

3.5.1.a.1 Path 1- Cycle 1: Constructing -Population

The population consisted of about 240 students in the compulsory personal finance course. This course is intended for 1st-year university students. The course is the only university

required course housed in the School of Business at CAU. The undergraduate enrollment is 3,302 with 914 students listed as 1st-year students. New personal finance sections have been added because of the increased enrollment and the change in the University curriculum in 2016 to require this course for incoming students as of fall 2016.

3.5.1.a.2 Path 1- Cycle 1: Constructing - Research Instrument

The TPB utilizes surveys to gather individual responses to attitudes, social norms, and controls to analyze the intention of a behavior. Therefore, the research instrument for this study consisted of an electronic survey that was administered to the personal finance students.

3.5.1.a.2.i Path 1-Cycle1: Constructing -Research Instrument-Ethics

Upon completion of training in the Protection of Human Subjects – "Social and Behavioural Sciences Track" provided by Collaborative Institutional Training Initiative (CITI) Programs, an ethics application was submitted to The Human Subjects Committee of the CAU Institutional Review Board. An expedited review was completed, and approval awarded on April 6, 2018.

To address the considerations with insider research, ethical approval was also sought through the University of Liverpool's ethical committee. The UOL ethical process was to ensure that the pivotal components of insider research ethics of human interdependence, collective generation of intelligence and fairer power relations as described by Coghlan and Brannick (2014), were appropriately considered for the study. For example, the participant information form and the participant consent forms both explicitly delineated the role the students would play in providing data for this study. Furthermore, the students were made aware that the researcher would use the information they provided to plan and implement action research (denoted by participating in both a pre and post survey) and that university stakeholders could make decisions based on their input. Finally, it was established that the student's participation was voluntary, anonymity would be maintained and that there would not be any penalty or retaliation for non-participation. The UOL DBA Ethics Committee granted approval on September 3, 2018.

3.5.1.a.2.ii Path 1-Cycle 1: Constructing – Research Instrument-Administration

A self-administered, structured survey was developed in Qualtrics (survey software). The study includes a pre-survey (t_0), intervention activities, and a post-survey (t_1). A link of the

survey was placed on the class Canvas (learning management system) course. The personal finance courses were taught by four instructors and included six sections, four in class and two online. For the on-campus courses, students were given time in class during September 11th and 17th to complete the survey. The survey link was available for on-campus and online students for five days. The request to participate was made by the instructors for the respective classes. The five activities were posted to the Canvas course separately and daily from September 27th through October 1st.

The activities were not limited to students taking the pre-survey but were available for viewing by all personal finance students until the close of the post-survey. The post-survey was available for five days starting on October 2nd. Due to limited available class time, the post-survey was completed during class time for only one on-campus course. Before answering context questions on the post-survey, students had to acknowledge that they had completed the activities. If the student had not completed the activities, they were prompted in the survey to view the activities and return to the post-survey. Students were offered extra credit to complete both the pre and post surveys.

3.5.1.a.2.iii Path 1-Cycle 1: Constructing – Research Instrument- Sections

The survey included five sections. The demographic characteristics and background factors of the students were solicited in the first section. The demographic characteristics included traits like gender, age, race, and classification. The background factors, limited in previous studies (Cohen and Hanno 1993, Allen 2004 and Tan and Laswad 2006), served as a complement to the TPB. Although gender, age, and race are components of the Social background factors, the survey solicited responses related to the Information category of background factors. The information category includes experience, knowledge, and media exposure. Students were asked to indicate their parent's occupation to measure experience, recognize the knowledge of the accounting profession by selecting job responsibilities and initial starting salaries, and demonstrate media exposure by selecting viewing of movies with an accounting storyline. The job descriptions highlight different career paths as identified by the National Association of Black Accountants (NABA). The job duties were included for the following positions: tax accountant, cost accountant, auditor, management accountant, internal revenue agent, and forensic accountant. Students were asked to select movies/programs from a list of 10 movies which are diverse in the depiction of the accounting profession.

The second section adopted from Cohen and Hanno (1993), Allen (2004) and Tan and Laswad's (2006) TPB survey was comprised of three subsections (A, B and C) that reflect the constructs of TPB. The first construct reflected in section A solicited the students' perceptions to reach desired outcomes based on selecting accounting as an academic major. The Cronbach's alpha for the attitude construct for Cohen and Hanno (1993), Allen (2004) and Tan and Laswad (2006) was .75, .85, and .60, respectively. The importance of the 11 outcomes associated with choosing an accounting major was rated on a five-point Likert scale bounded by endpoints of 1, not at all important and 5, extremely important. For instance, students were asked to score the importance of the following outcomes: "Earning a high initial salary is…." and "Career that is challenging is….". The students were then asked to rate on a scale from 1 to 5 (1 = extremely unlikely to 5 = extremely likely) the probability of realizing the outcomes by selecting accounting as an academic major.

The second construct reflected in Section B solicited the students' normative perception of relevant people's opinion of the students' selection of a major and the level of importance given to the referents' opinion. For the referent construct Cohen and Hanno (1993), Allen (2004) and Tan and Laswad (2006) had Cronbach alpha scores of .78, .75 and .86, respectively. A Likert scale ranging from 1 to 5 (1 = strongly disagree to 5 = strongly agree) was employed for students to notate if parents, classmates, professors, friends of the family, most business people they know, and high school advisor thought that the student should major in accounting. The influence level to adhere to the opinion of the referents was assessed by asking the students to rate on a scale from 1 to 5 (1 = not at all important to 5 = extremely important) the importance to acquiesce the views of the referent.

Section C reflects the third construct, solicited the students' perceived behavioral control. The alpha reliability for this construct measures .74 for Cohen and Hanno (1993), .89 for Allen (2004) and .69 for Tan and Laswad (2006). The inquiry measured on a Likert scale from 1 to 5 (1 = strongly disagree to 5 = strongly agree) the student's agreement relating to control beliefs given a selection of an accounting major.

Locus of control describes the source of causation individuals give for the dominant events in their lives. Levenson (1981) separates Rotter's unidimensional I-E concept into a multidimensional scale that includes Internal, Powerful others, and Chance expectancies. The third section of the survey is comprised of three subsections (A, B, and C) that reflect the expectancies of Locus of Control (Levenson 1981). The alpha reliability measures .71 for

internal, .81 for powerful others and .72 for chance. A Likert scale ranging from 1 to 5 (1 = strongly disagree to 5 = strongly agree) was utilized for students to select a response matching closest to how they felt.

Openness to Experience is a component of the Big Five personality dimension. The fourth section of the survey is comprised of a 10-item scale that measures openness to experience. The alpha reliability measures .82. A Likert scale ranging from 1 to 5 (1 = strongly disagree to 5 = strongly agree) was utilized for students to select a response matching closest to how they felt.

Situational factors can impact achievement motivation; therefore, the final section of the survey examines situational achievement motivation on the intention and selection of accounting as a major. These factors have not been tested in other studies. Five items for each variable was developed to mitigate risk. A Likert scale ranging from 1 to 5 (1 = strongly disagree to 5 = strongly agree) was utilized for students to select a response matching closest to how they felt.

In addition to selecting the intended major (accounting major was the target intention), the students were asked three more intention questions. The questions were rated on a five-point Likert scale bounded by endpoints of 1, strongly disagree and 5, strongly agree. The students were asked to score their agreement of the following statements: "I would consider a major in accounting," "I would like to major in accounting," I would like to pursue a career in accounting." The students were asked to rate on a scale from 1 to 5 (1 = strongly disagree to 5 = strongly agree) their intention to pursue accounting.

In all, there were seven constructs and 82 measurement items. Three of the constructs were independent variables to select accounting as a major, which were the attitude toward behavior, subjective norm, and perceived behavioral control. Three of the constructs were moderating variables to select accounting as a major, which were the locus of control, openness to experience, and situational achievement motivation. The dependent variable was the intention to select accounting as a major. These items are depicted in Appendix 6.

3.5.1.a.2.iv Path 1-Cycle 1: Constructing – Research Instrument- Procedures and Calculations

The analysis of the TPB construct calculations is found in Chapter 4. The importance of the 11 outcomes to the respondents was multiplied by the likelihood that a major in accounting would provide the outcome. Importance of outcome (IO) x Attitude accounting in major would provide outcome (ATTA)= IOATTA. The six referent attitudes toward selecting a major in accounting were multiplied by the importance of the referent's attitude towards the respondent — importance of referent's opinion (I) x referent's attitude to select accounting as a major (SNA) = ISNA. The pre and posttest calculations are designated by t_0 and t_1.

Items seven through ten listed for the locus of control internal, powerful others and chance were noted as negatively keyed items and required a reversal of the Likert scale. For example, the survey to the students presented questions seven through ten under locus of control internal, powerful others and chance as a Likert scale ranging from 1 to 5 (1 = strongly disagree to 5 = strongly agree). Interpretation of the locus of control scale requires negatively keyed items (items seven through ten under each locus of control section) to range from 1 to 5 (1 = strongly agree to 5 = strongly disagree). The items in each locus of control section were summed for a total score. The sum of 10 locus of control internal items = LOCIT. The sum of 10 locus of control powerful others items = LOCPT. Finally, the sum of 10 locus of control chance items = LOCCT. The pre and posttest calculations are designated by t_0 and t_1. The analysis of locus of control is discussed in section 3.5.1.b.2.

Items six through ten listed for openness to experience were noted as negatively keyed items and required a reversal of the Likert scale. In the survey, the answer choices for items six through ten for openness to experience were presented on a Likert scale ranging from 1 to 5 (1 = strongly disagree to 5 = strongly agree). Interpretation of the openness to experience scale requires negatively keyed items (items six through ten under openness to experience section) to range from 1 to 5 (1 = strongly agree to 5 = strongly disagree). The ten items in the openness to experience section were summed for a total OTE score (OTET). The pre and posttest calculations are designated by t_0 and t_1. Discussion of the OTE analysis is found in section 3.5.1.b.2.

The 15 items in the situational achievement motivation section were summed for a total SAM score (SAMT). The pre and posttest calculations are designated by t_0 and t_1. Section 3.5.1.b.2. provides the analysis.

3.5.1.a.2.v Path 1-Cycle 1: Constructing – Research Instrument- Analysis tool

Data were analyzed using descriptive analysis provided through SPSS 25.0, and partial least squares equation modeling (PLS-SEM) provided through SmartPLS 3.2.8 (Ringle et al. 2015). PLS-SEM was judged most suitable, given the predictive focus of this study. Additionally, PLS-SEM's distribution-free assumption attribute was also beneficial to this study. Sample size considerations afforded by PLS-SEM based on Hair et al. (2016) rule of thumb suggest that an appropriate sample size is ten times the largest number of formative indicators used to measure a single construct. In this study, the largest number of formative indicators, four indicators, are directed to latent construct ATT (attitudes toward selecting an accounting major). Therefore, four indicators multiplied by 10 gives 40 cases. The 83 respondents for this study comply with the sample size requirement. While the use of PLS modeling has proved suitable and beneficial for studies in various disciplines, it is also a tool for analyzing longitudinal studies that present development and changes to constructs (Roemer 2016). In Roemer's (2016) study, a flow chart provides a path to the most appropriate PLS model based on the research objective. In this study, the indicators at different points, t_0 before any intervention and t_1 after participating in five activities, are used to create the exogenous and endogenous constructs at the different points in time. Although different students from the same pool of students chose to complete the survey at t_0 and t_1, panel data is available for 83 students. Given a primary research objective for this study is to investigate the implications of an intervention to the perception of accounting over time and the collection of panel data, Roemer (2016) recommends an evolution model type with an analysis phase consisting of stages (1) One PLS model with constructs at t_0 and t_1 and (2) multigroup analyses to test changes in path coefficients from t_0 to t_1 .

3.5.1.b Path 1-Cycle 1: Planning Action

Before collecting the data, the action research learning set (Phillips, Hudson and Young 2018) discussed that the action should include activity or engagement that depict the various careers in accounting, the diversity of success in the profession, and assurance that an academic major in accounting was obtainable. The set members had personal experiences that suggested the importance of the inclusion of variety, diversity, and achievability; furthermore, the strategy was consistent with the literature review. The learning set was intentional to assess experiences by review rather than unconscious acceptance (Mumford 1996). At the time of the presurvey t_0, it was not known which students from t_0 would

complete the post-survey at t_1; therefore, insight was gained from the 188 completed student surveys at t_0 and contributed to the development of action.

3.5.1.b.1 Path 1- Cycle 1: Planning Action- Background Analysis

As mentioned previously, background factors augment the three constructs of the TPB and serve as an antecedent to the intention (Ajzen 2005). The information category which includes experience, knowledge and media exposure was deemed by the action research learning set (Phillips, Hudson and Young 2018) as an appropriate means to plan action. Students were asked to indicate their parent's occupation to measure experience. Although only 5.3% of the parents had an accounting occupation, more than half of the parents were business professionals other than accounting (52.7%). The remaining parents represent nonbusiness professionals (14.9%), non-professionals (14.9%), education professional (9.6) or homemakers (2.7%). The accounting responsibilities that students were most knowledgeable of were management accountants (87.8%) and tax accountants (66.0%).

The students noted an average starting salary of $99,470 for accountants; however, the standard deviation suggests that the student's estimation of the starting salary for accountants were across a wide range of salaries. The students did not seem to have much media exposure to viewing movies with an accounting storyline given Hitch (62.8%) was the only movie watched by a majority of the students. The students revealed that they get information regarding selecting a major from the following top three sources: internet/website (80.3%), Professionals in the desired career (72.8%) and informational videos (60.7%). The removal of misinformation regarding background perceptions helps to remove perceived obstacles to selecting accounting as a major.

3.5.1.b.2 Path 1 – Cycle 1: Planning Action - LOC, OTE, and SAM Analysis

The locus of control scores indicate how students view the source of the events that happen in their lives. The average score for locus of control internal for the students was 39, which suggest that the students expect to have control over their lives (IPIP 2018 and Levenson 1981). The students do not expect powerful others to have control over their lives based on the average score of 23 for locus of control powerful others (IPIP 2018 and Levenson 1981).

Similarly, the students do not expect chance forces to have control over their lives, indicated by an average score of 23 for locus of control chance (IPIP 2018 and Levenson 1981). The students' openness to experience average score of 37 suggests that the students are patulous

to different ideas (IPIP 2018). The students appear to respond to motivation from peers, professors, and accounting professionals with an average situational achievement motivation average score of 53. The moderating variables assist with changing prior circumstances – how students think about accounting – of the intention of a major to consider accounting.

3.5.1.b.3 Path 1 – Cycle 1: Planning Action - Guidelines

Given the student responses on where they seek information when making decisions regarding an academic major, it was advisable to incorporate accounting professionals, informational videos, and internet/website engagement in the plan for action. It was important to keep the activities short to increase the chance that the student would participate. Upon review of several websites and videos that highlighted accounting professionals, the careers available in accounting, the trends in the accounting profession, the future of accounting and diversity of the profession, six videos created by stakeholders to the profession and university were selected for action implementation.

3.5.1.c Path 1 – Cycle 1: Action Implementation

For five days, an activity was posted daily to the Canvas learning management system for the personal finance courses. Students were able to click on the link to view the video and were given an email address if they had questions or wanted additional information. The course professors were asked to announce in class that the activities were available on Canvas. At the end of the five days, the post-survey was posted to the Canvas learning management system. Although initially, the plan was to complete the post-survey during class time, insufficient class time for the personal finance courses prevented the professors from permitting the students to receive class time to complete the post survey.

3.5.1.c.1 Path 1 – Cycle 1: Action Implementation - Day 1 Activity

What to Expect When You Choose a Career in Audit – Presented by Center for Audit Quality 2016

The 5-minute video presents a day in the life of auditors from public accounting firms who are in the early stage of their career. The young professionals describe what they do, places they travel, what and whom they encounter in performing their job in a "selfie-style" presentation. There are eight diverse young professionals working in major United States cities: Houston, San Francisco, Chicago, New York City, Washington DC, and Atlanta.

The video was selected because it informs students about an audit career. The survey revealed that CAU students did not seem informed about the audit career path, although the literature review suggests that students are generally aware of the audit path. Although the accounting profession is male-dominated, the video also has equal male and female representation. African American auditors were included, and the auditors are portrayed from different cities consistent with the profile of CAU students.

Go Beyond – Presented by AICPA June 2018

The 2-minute video describes how accelerated enhancements in technology require accountants to go beyond traditional thinking and to tap into alternative avenues for addressing and solving client issues. The video moves the accountant from a mere bystander to both contributor and initiator of innovative learning. Students are encouraged to go beyond their comfort zone, beyond convention, beyond boundaries, beyond borders, beyond expectations, beyond ambitions to facilitate a career in accounting paced with technological advances.

This video was selected because it depicts a complete revolution to the traditional view of the characteristics of the accountant and the profession.

3.5.1.c.2 Path 1 – Cycle 1: Action Implementation - Day 2 Activity

Start Going Places – Presented by AICPA 2009

The 3-minute video describes a college student who is interested in accounting. Her father is a CPA and suggest that she visit practitioners in the various career paths of accounting. The student seeks to discover opportunities that are different from the traditional roles in accounting. The student interviews a female professional athlete in the women's national basketball association who also has a rewarding career in accounting. The student interviews a female partner in a CPA firm who articulates her ability to balance a career as a partner and enjoy her family life. During an interview with a university accounting professor, the student learns about an academic accounting career.

This video was selected because it included a referent relationship, and it outlined different careers and various benefits of the profession. There is also a female as the interviewer, and two of the three practitioners are female.

3.5.1.c.3 Path 1 – Cycle 1: Action Implementation - Day 3 Activity

Pillars of Success: 4 Generations of African American CPAs – Presented by AICPA 2007

The 10-minute video delineates the benefits of being a CPA from the perspective of four African American CPAs at different stages in their careers. The video provides a historical context to the plight of African Americans in the United States and the obstacles faced by accountants in the pursuit of the CPA designation. The African American trailblazers note the characteristics that can assist a person of color to advance in the accounting profession — Ruth Harris who is one of the 1st 100 African American CPAs in the United States to obtain licensure states that perseverance was critical to her success. She notes that the flexibility of the profession was most beneficial to her. Her specific message for African American students is that the CPA designation helps to level the playing field, certifying the ability to compete with all others. It helps minimize the boundary of color. Another pillar, James C White, describes excellence as a driving factor for success in accounting. James White was the 1st African American CPA in the state of Alabama and was the founding partner for one of the largest minority CPA firms in the United States. The next pillar describes his CPA designation as an opportunity to rise above his environment and circumstances to reach goals. The final pillar articulates that having a balanced life is the product of a career as a CPA. She demonstrates in her career the capacity to have a firm, a family, and foster community involvement. The video targets African American students with motivation and encouragement for students to pursue a career that is dearth in minority representation but provides personal satisfaction, financial wealth, and longevity.

This video was selected because of its compelling awareness and motivation for African American students. Although the CPAs in the video have successful careers, they are personal and can be viewed as someone "touchable" to African American students. The LOC, OTE, and SAM scores of the students suggest that they might be receptive to this type of informational video. It is a video that I show to all my senior and graduate accounting students. Each time I watch it, I become more committed to exposing African American young people to the accounting profession.

3.5.1.c.4 Path 1 – Cycle 1: Action Implementation - Day 4 Activity

Evolution of a Profession – 8,000 years of Accounting – Presented by AICPA 2012

To celebrate the 125th anniversary of the AICPA, a 6-minute video was released to chronicle the origins of the accounting profession from its beginning to the present day. Accounting is

recognized for developing writing, providing the 1st means for financial communication, facilitating global trade, and contributing to economic functionality of the United States. The video's historical stroll allows students to see the role accounting plays in every aspect of business.

This video was selected because it provides a thorough highlighted review of the contribution of accounting to society, the economy, and business. The mathematician, Luca Pacioli, credited for creating double entry accounting is highlighted to show that the math of accounting is the language of business.

Future CPAs – Presented by AICPA 2012

The AICPA presents a 1-minute video depicting a visionary perspective of two young children who articulate their future needs as individuals and practitioners and the facility of the accounting profession to meet those needs. They assert that the accounting profession will undergo metamorphosis to meet the future needs of accounting professionals.

This closing video was selected to show that the accounting field is not only ready for the future but is the future.

3.5.1.c.5 Path 1 – Cycle 1: Action Implementation - Day 5 Activity

2018 Salary Guide for Accounting and Finance Professionals – Prepared by Robert Half 2018

Students were given an electronic copy of the 2018 Salary Guide. The guide describes in-demand skills and certifications for accounting and finance jobs. The guide provides students with salary ranges based on title/experience, company size, and company location. The guide also illuminates what contributes to placement at a dollar amount within the various salary range.

3.5.1.d Path 1 – Cycle 1: Evaluate

The post-survey t_1 included demographic characteristics and background factors of the students in the first section. Unlike the pretest, the post-survey limited demographic characteristics to gender and classification. The students were asked to confirm that they participated in the five activities before moving forward to complete the survey. The students had the opportunity to leave the survey, review the activities, and return to complete the survey. The post-survey included seven additional questions from the pre-survey. The seven questions related to the student's perception of the intervention.

The seven intervention items associated with the perception of an accounting major were rated on a five-point Likert scale bounded by endpoints of 1, strongly disagree and 5, strongly agree. The students were asked to score their agreement of the following statements that as a result of the Choosing Your Major Activities: "I have a better understanding of the different careers in accounting", "I view accounting professionals more positively", "I have a better understanding of the work of accounting professionals", "I understand that there are African-American who are successful in accounting", "I have a better understanding of the salary range for accounting professionals", "I believe I have the skills to be successful in accounting", "I would like more information about majoring in accounting. The students were then asked to rate on a scale from 1 to 5 (1 = strongly disagree to 5 = strongly agree) the understanding of accounting information based on the intervention activities.

3.5.1.d.1 Path 1 – Cycle 1: Evaluate - Outcomes

While 188 students completed the pre-survey, only 129 students completed the post-survey. The students completing both pre and post surveys were 83. It is not known how many of the 188 pre-survey students participated in the intervention activities and chose not to take the post-survey, but 46 students who did not take the pre-survey decided to participate in the intervention activities and complete the post-survey. Students were required to complete both pre-survey and post-survey to receive extra credit; therefore, the 46 students were not incentivized to engage in the activities and complete the post-survey. It may suggest that presenting the intervention activities to all students rather than just to those taking the pre-survey provided exposure to the accounting major to more students. Although several students complained about the length of the pre-survey, it is unclear why 105 students did not complete the post survey.

Overall, the responses to the intervention were favorable. Students better understand the different careers in accounting (89.9%), students view accounting professionals more positively (77.5%), students have an improved knowledge of the work of accounting professionals (86.1%), students understand that there are successful African Americans (89.2%), and students understand the salary range for accounting professionals (87.6%) Fewer students believe that they have the skills to be successful in accounting (59.7%) and half of the students wanted more information regarding accounting (50.4%). The number of

students selecting accounting as a major did not improve; however, 31% of the students would consider a major in accounting, 21% would like to major in accounting, and 20.9% would like to pursue a career in accounting.

3.5.1.d.2 Path 1 – Cycle 1: Evaluate – Feed to Next Cycle

The action learning set (Phillips, Hudson and Young 2018) acknowledged that the intervention improved the perception of accounting; however, the anonymity of the survey prevented direct follow up for the students expressing consideration in majoring in accounting. It was viewed as important to continue the momentum with the students without further imposing on the personal finance course.

3.5.2 Path 1 Converting existing CAU non-accounting students -Cycle 2

After reading literature (Deaver 2018) that discussed an accounting recruitment and retention plan from a similar university, I contacted Professor Yolanda Deaver at North Carolina Central University. Professor Deaver shared that her university had not experienced the growth noted in the AICPA 2017 trend report and conversed the specifics of her article. Most of the effort was on existing North Carolina Central students, and it took roughly two years before North Carolina Central University reaped a 2.3% increase in accounting majors.

3.5.2.a Path 1 - Cycle 2: Constructing

The encounter with Professor Deaver prompted the thoughts for a follow-up event. The faculty advisor for the Institute of management accountants (IMA) student chapter was contacted to assist with sponsoring an accounting activity. One of the goals of the IMA student chapter (IMA 2018) is to expose students to careers in accounting; therefore, working with the IMA student chapter would contribute to meeting its goals as well as allow the personal finance students to interact with accounting majors.

3.5.2.b Path 1 – Cycle 2: Planning Action

I recommended showing the accounting documentary "All the Queen's Horses" by Kelly Richmond Pope as a departmental movie night. Kelly Richmond Pope is an African American female CPA and Ph.D. at DePaul University. The documentary details how one woman stole $53 million without anyone noticing. As city comptroller of Dixon, IL, Rita

Crundwell stole $53 million of public funds across 20 years—making her the perpetrator of the largest case of municipal fraud in American history. She used the funds to build one of the nation's leading quarter horse breeding empires, all while forcing staff cuts, police budget slashing, and neglect of public infrastructure. Dr. Pope investigates her crime, her lavish lifestyle, and the small town she left in her wake.

The faculty advisor and I had both seen the documentary and were slightly concerned about the length of the movie. With a runtime of 1hour and 10 minutes, it was shorter than most movies but a little long for an academic event. We decided that the documentary was presented in a manner that would hold the students' attention for 1 hour and 10 minutes. The IMA student chapter was responsible for marketing the event to the CAU students. Flyers of the event were posted to the personal finance Canvas course and the IMA chapter's social media (Instagram and Twitter) outlets. The movie was to be hosted on campus in a large lecture hall with two large screens. The agenda was to serve pizza, watch the movie, then engage in a discussion. The movie was available through Netflix and would be played on my personal Netflix account.

There was inclement weather on the day of the scheduled event, and I, along with the faculty advisor, decided to reschedule the event. Due to university scheduling conflicts and room reservation requirements, it took several days to schedule another date. The turnaround time for the rescheduled date was much shorter; however, the IMA students were able to notify students via social media regarding the new date. I was appreciative to the personal finance professors for allowing me to post the pre and post survey and intervention activities from Cycle 1 to their Canvas courses and to post the follow up movie original event and cancellation; consequently, I wanted to preserve the relationship and did not ask for the rescheduled event flyer to be posted to the personal finance Canvas courses.

3.5.2.c Path 1 – Cycle 2: Action Implementation

The movie event was Monday, November 19th, from 3:30 – 5:30. There were 110 students in attendance from the sign in sheet. The attendance was greater than the 10 to 40 participants that are normally present at accounting events. Typically, the accounting events are only marketed to accounting and finance students. I asked all the students who were in the personal finance classes to stand and counted 60 students. This is noteworthy because the attendance of these students is related to Cycle 1, and the students are not likely to be accounting majors. Students were engaged during the movie and were expressive to various

scenes in the movie. I was slated to lead the after-movie discussion and had prepared discussion questions. My opening question was, "what did you guys think?". At least 20 hands went up, which is unusual for student participation at CAU, to share. The students engaged in intellectual conversation ranging from not believing Rita Crundwell acted alone, concerns about the competence of the auditors, examples of small-town perspectives, racial privilege, internal controls, and government investigations. The debate ensued slightly past the scheduled end time. I was pleased that students enjoyed discussing an accounting activity.

3.5.2.d Path 1 – Cycle 2: Evaluation – Feed to Next Cycle

On Tuesday evening, November 20th, I received a text from an accounting colleague stating that "Both my classes wanted to discuss the movie today. Two male students are considering Accounting forensics for a career". The intended outcome was to convert existing CAU non-accounting students to an accounting major.

The next Cycle should provide a means to follow up with students who express an interest in accounting. A spark in accounting interest is beneficial; however, the goal is to convert students – to officially notify the registrar - who find accounting more suitable to meet their academic and career goals. Students do have the ability to select accounting as a major with the registrar without involving an academic advisor.

3.6 Path 2 Attract Georgia High School accounting students to CAU

The literature (AICPA 2017) shows that accounting majors have increased and are projected to continue to increase and that many students select academic majors during high school (Byrne and Willis 2005, Crawford and Wang 2014, Hartwell et al. 2005 Kirdok and Harman 2018 and Wells 2015); consequently, a relationship with high schools would prove prudent for CAU. My position provides the autonomy necessary to engage in activities that will attract accounting students to CAU. The hypothesis testing provided data regarding the students who had an opportunity to take an accounting/bookkeeping course in high school.

3.6.1 Path 2 Attract Georgia High School accounting students to CAU – Cycle 1

The direct responsibility for University recruitment does not reside in the Business school. Therefore, the cycle considers the most beneficial type of relationship for CAU and the high school community.

3.6.1.a Path 2 – Cycle 1: Constructing

The Georgia Department of Education offers a finance career cluster pathway for advanced accounting and business accounting (DOE 2018) for students attending Georgia public schools. It is at the discretion of individual districts and schools to participate in the career pathway. The state of Georgia offers scholarships (Hope and Zell) to qualifying Georgia students (GaFutures 2018) that are funded by the Georgia lottery to attend college in Georgia. The amount of the scholarship compared to the tuition of Georgia State schools makes it favorable to Georgia students to select Georgia public universities. While Georgia residents may apply the Hope and Zell scholarships to tuition at CAU, the award is minimal compared to the cost of tuition. Hence, attracting high achieving Georgia students to CAU presents difficulty.

The state of Georgia also offers a dual enrollment program for Georgia high school students to attend Georgia Colleges and Universities (GaFutures 2018) while in high school. Acquaintance with college-level courses, an increased likelihood to attend college, and improved confidence in academic success are only a few of the benefits for high school students to participate in dual enrollment. Likewise, high school students have an opportunity to take courses at a college in subject areas not available at their high school. This allows CAU to potentially service Georgia high school students interested in accounting when it is not offered at their school. Dual enrollment is not utilized in the Business school.

Additionally, hypothesis testing revealed that information regarding the job responsibilities and career paths available for accounting students might help influence the intel high school students use to make academic major decisions.

3.6.1.b Path 2 – Cycle 1: Planning Action

A call was made to the Finance career cluster pathway Program Specialist to discuss some of the concerns of teachers, administrators, and students participating in the accounting courses and how I could assist addressing some of the concerns. I also requested data to assess the districts and individual schools offering the accounting courses. Students in the program typically are members of Future Business Leaders of America Association (FBLA); however, direct access to the high school students is limited. My goal was to develop opportunities to engage with teachers, administrators, and students who are a part of the accounting pathway.

3.6.1.c Path 2 – Cycle 1: Action Implementation

My contact information was sent to teachers in Finance career cluster pathway to assist with classroom speaking needs. I am on a list to potentially serve as a judge for the 2019 FBLA State Leadership Conference. I was asked to provide feedback for the re-write of Middle School Business and Finance courses planned for implementation for the 2019 – 2020 school year.

3.6.1.d Path 2 – Cycle 1: Evaluation – Feed to Next Cycle

The opportunity to serve as a judge and contribute to the middle school curriculum provides a viable inroad for me and CAU to develop relationships that share our value with Georgia schools. The Middle school business and finance curriculum is confidential until the board approves it, but several goals, verbal and written communication, technology integration, critical thinking, and ethics are consistent with the AACSB assurance of learning requirements used by CAU. After reviewing the data from the Georgia Department of education, there are several schools offering accounting courses where CAU routinely recruits. In the next cycle, I hope to collaborate with the recruiting and admissions departments at CAU to target the accounting students from those schools.

3.7 Path 3 Niche Accounting Program

Unlike Action plans 1 and 2, the third action path, which is new and different from the fabric of the business school and accounting department, requires an agent of change perspective. The CAU Business school has a goal to develop leaders for global markets and has as a slogan "Rich History, Strong Legacy, Global leadership"; yet the school is deficient in providing global experiences for the students. Fisher et al. (2017) discuss the importance of business schools to consider niche markets to add value to the student's matriculation.

3.7.1 Path 3 Niche Accounting Program - Cycle 1

A niche program should seek to benefit potential students, existing students, alumni, and faculty. Consequently, this cycle considers an appropriate program for CAU to implement.

3.7.1.a Path 3 Niche Accounting Program - Cycle 1: Constructing

A study by Phillips (2018) examines the progress of HBCUs in preparing African American students for the International Reporting Standards (IFRS) that are currently tested on the CPA and CMA exams. Other than a general introduction of IFRS, CAU does not have a course

that teaches the international standards. Clay (2013) suggest that study abroad provides an opportunity to teach international standards. Unfortunately, the accounting curriculum at CAU limits study abroad opportunities without prolonging matriculation. During the junior and senior years, major accounting courses are only taught once a year.

Additionally, international upper - level accounting courses must follow the US generally accepted accounting principles to transfer for credit at CAU. The Penn Center for Minority Serving Institutions (Esmieu et al.2016) reports that of the students that participate in study abroad, only 3.6% are students from minority-serving institutions. The report further notes that the benefits of study abroad contribute favorably to recruitment, retention, and graduation rate. Equally important is the faculty welfare available for professional and personal development from studying abroad.

It is also noted from hypothesis testing that accounting students may not know the global opportunities available in both public accounting and industry for accounting majors. Furthermore, the OTE scores suggest that students may embrace studying abroad.

3.7.1.b Path 3 Niche Accounting Program - Cycle 1: Planning Action

The action to attract accounting students to CAU is to propose a faculty-led study abroad course designed for accounting and finance students that train students on international financial reporting standards without extending matriculation. As a change agent in my department, this would require developing a course of action that has not been done in the accounting department and would require approval from the Department Chair, Dean, International Director, Associate Vice President of Student Enrollment and the Provost. It was necessary for the action research learning set to contemplate the level of resistance that may arise. The course of action would also require accounting students to participate in the course, travel abroad, and secure funding.

I met with the International Director to share my thoughts and to get feedback on her department's role in the process of starting a faculty-led study abroad for accounting students. The Director was excited about the idea and expressed her desire to engage business school faculty with her department. She also mentioned that the university has a relationship with the Council on International Educational Exchange (CIEE) an organization that specializes in study abroad. I contacted CIEE and was able to apply and secure a scholarship to attend a site visit to Amsterdam and Budapest. The goal was to assess the learning and cultural environment to build a faculty-led study. While both places were rich in

culture, intellectual acumen and practice IFRS, the CIEE relationship with the University of Amsterdam, an AACSB accredited management school, appeared more suitable for CAU. The site visit was informative on the benefits of studying in Amsterdam and inspection of various facilities; however, the site visit did not aid with planning a faculty-led study.

CIEE offers an International Faculty Development Seminar (IFDS) for Minority Serving Institutions (MSI) in partnership with the Penn Center. The seminars provide faculty and administrators with an opportunity to experience academics, various intercultural engagement, and unique approaches to learning that contribute to syllabi development, internationalizing curricula, and expanding global insights when planning study abroad programs. I solicited my colleague and action research learning set member to partner with me to develop the study abroad program for CAU accounting and finance students. My colleague and I applied for the IFDS program and were awarded a scholarship to attend the IFDS in Santo Domingo, Dominican Republic.

Before attending the IFDS, we were met with opposition from the department chair. The department chair was closed to the benefits of our students studying abroad, felt students would not show interest in the course, and did not think funding would be available for students to take part. The new Dean, on the other hand, was from a business school with a viable study abroad program and completely supported our students studying abroad. His resistance related to the study's accounting and finance students' restriction. I articulated that IFRS is an advanced accounting concept that may not prove relevant or valuable to non-accounting and finance students. Furthermore, the intent was to merge an IFRS and study-abroad niche to attract accounting students. The Dean acquiesced, and we continued to move forward with developing the study-abroad course.

During our time at the IFDS in Santo Domingo, my colleague, the CIEE program specialist and I were able to develop a week-long faculty-led study abroad program that would travel to Amsterdam during spring break 2019. We were warned regarding the difficulty in planning a program in less than 12 months and the challenge of getting ten students to participate. Although we had created the template for the Amsterdam portion of the course, we had to develop course content to merit a 3-credit hour course.

I completed the Faculty-led study abroad proposal and received approval to run Spring semester 2019. Despite accomplishing the first hurdle of course approval, we were still faced with needing students and funding. The approval came only a few days before the spring

registration period started. We were prohibited from marketing the course and taking applications until the course was approved. The international department marketed the program to students through the University's social media outlet. My colleague and I made a power point presentation about the study to the students in our courses. Both my colleague and I are the primary upper-level courses professors for our respective disciplines; therefore, we both have our students for multiple courses and are connected to them. Contrary to the standard for student engagement (10) with first running faculty-led study abroad programs, we had 19 students to apply for the program.

The next step was to work with the International department and the scholarship department to help students with financial gaps. We also made a presentation to supporters (alumni) of the business school and was able to discuss funding for a student participating in the program. We were able to secure all financial gaps for 13 students. We were pleased to have 13 students enrolled and funded in the faculty-led study abroad course for Spring 2019. The international director was responsible for working with students to get US passports. This trip was the first travel out of the United States for 11 of the 13 students.

3.7.1.c Path 3 Niche Accounting Program - Cycle 1: Action Implementation

The course started January 16, 2019, with travel to Amsterdam March 10 – 16, 2019. Upon travel to Amsterdam, students toured the campus of the University of Amsterdam, visited an IFRS lecture at the Vrije Universiteit Amsterdam, and explored business startups at De Cenvel. While in Amsterdam, students were hosted by one of the largest International CPA firms. The students participated in cultural events and a service project. The students also had a unique opportunity to learn about the slavery heritage and racism that people of color experience in Amsterdam. The CAU Students were required to develop a project to commemorate their travel that will serve as recruitment tools.

3.7.1.d Path 3 Niche Accounting Program - Cycle 1: Evaluation – Feed to Next Cycle

The course sparked excitement from recent graduates who express regret that a similar opportunity was not available during their matriculation. I met with other business school faculty who are interested in creating a course for students in their discipline. I have had the opportunity to discuss the program with potential students during campus visits.

The next cycle entails running the program again Spring 2020, maintaining accounting and finance exclusivity. I want to run alternating destinations so that incoming accounting

students would plan for faculty-led study abroad courses with IFRS focus Spring of junior and senior years.

3.8 Conclusion

My action research entailed a blend of first, second- and third-person inquest to address the problem my University experienced regarding the decline in accounting majors when other Universities are experiencing growth. An action research learning set served as one of the collaborative relationships that contributed to sensemaking and moving through the action research cycles. The paths and cycles demonstrated an ability to collaborate with various stakeholders and develop me as a scholar-practitioner. Internal alliances with the international department were developed. External coalitions with the Georgia DOE and CIEE have been established as well as penetrating networks in Amsterdam. The strategies for addressing the problem were to convert existing non-accounting CAU students to accounting based on data analysis. The theory of planned behavior examines the intention of a behavior served as the framework for providing data to analyze.

The factors that contribute to an intention can start as early as high school; therefore, a path that seeks to engage high school students was pursued. The premise that high school students interested in accounting would be attracted to CAU. It was further noted during action implementation that students as young as middle school have an opportunity to learn about accounting and form attitudes about an accounting academic major in Georgia public schools.

The final action path sought to provide a niche program that would attract accounting students and create a specialty in international financial reporting standards. The action paths and cycles produced favorable traction to improve the number of students selecting accounting as an academic major. I believe the action outcomes have produced sufficient learning, and if iterated over time would reap measurable changes – an increase in accounting majors at CAU. I also believe that other departments at CAU as well as accounting departments at other universities that are concerned about increasing an academic major will benefit from my action research cycles.

CHAPTER 4

DATA ANALYSIS AND FINDINGS

Chapter: 4 Data Analysis and Findings

4.1 Introduction

Chapter 4 discusses the data analysis utilizing PLS-SEM modeling for hypothesis testing and action research paths. Section 4.2 provides demographic details and information category background statistics of the student respondents. In Section 4.3, a systematic procedure for applying PLS-SEM is described. This includes PLS path model estimation, assessing PLS-SEM results of the reflective measurement models, assessing PLS-SEM results of the formative measurement models, evaluating PLS-SEM results of the structural model, and examining moderating variables. An analysis of longitudinal PLS-SEM modeling is presented in Section 4.4. Section 4.5 outlines the findings for action Path 1. The analysis and findings for action Path 2 are discussed in Section 4.6, followed by Section 4.7, which describes the results from action Path 3. The conclusion for chapter 4 is discussed in Section 4.8.

4.2 Respondent profile

Overall, a total of 188 respondents completed the survey at t_0, and 129 respondents completed the survey at t_1. To minimize the risk of panel attrition, students were reminded by announcements on the Canvas course to complete their survey. In total, 83 students completed the survey at t_0 and t_1. Table 4 summarizes the characteristics of the students. The greater part of the respondents is female (81.9%), African American (91.6%) between the age of 18 to 21(83%) and selected a major other than accounting (95.2%). African American females are underrepresented in the accounting field; therefore, the respondents represent a target population. The classification of the respondents were freshmen (2.4%), sophomore (36.1%), junior (45.8%) and senior (15.7%). The occupation of the respondent's parents was mostly represented by other business professionals (57.8%) followed by nonprofessional (16.9%) and non-business professional (10.8%). Occupations of educational professional, homemaker, and accountant provided less representation with 8.4%, 3.6%, and 2.4% respectively. Accounting/bookkeeping courses were offered at 24.1% of the high schools attended by the respondents. The high school course was taken by 45% of the students whose high school offered the course. Students taking accounting in high school represents 50% of accounting majors. Information available on the internet represents the source of information for selecting a major for 80.7% of respondents. Most of the respondents also used Professionals in the field (73.5%), informational videos (65%), TV/movie portrayal (60.2%),

and University/departmental websites (50.6%) to make decisions regarding their academic major. Of the ten movies listed, Hitch was the only movie viewed by many of the students (61.4%). The majority of the respondents believed that accounting professionals have careers as management accountants (89.2%) and tax accountants (62.7%).

Table 4: Respondent Profile	**Count**	**Percentage**
Gender		
Female	68	81.9%
Male	15	18.1%
Race		
African American	76	91.6%
Other	7	8.4%
Age		
18 - 21	69	83.0%
22 - 30	14	17.0%
Academic Major		
Accounting	4	4.8%
Non-Accounting	79	95.2%
Classification		
Freshman	2	2.4%
Sophomore	30	36.1%
Junior	38	45.8%
Senior	13	15.7%
Parent Occupation		
Other business professional	48	57.8%
Nonprofessional	14	16.9%
Non-business professional	9	10.8%
Education professional	7	8.4%
Homemaker	3	3.6%
Accounting professional	2	2.4%
High School accounting exposure		
Bookkeeping/Accounting offered in High School	20	24.1%
Students taking High School course	9	10.8%
Source of Information		
Internet/Web	67	80.7%
Professionals in the field	61	73.5%
Informational videos	54	65.0%
TV/Movie portrayal	50	60.2%
University/Departmental Website	42	50.6%
Accounting Position knowledge		
Management accountant	74	89.2%
Tax accountant	52	62.7%
Forensic accountant	36	43.4%
Internal revenue agent	34	41.0%
Cost accountant	33	39.8%
Auditor	31	37.3%

4.3 PLS-SEM

Conducting the study employing the PLS-SEM tool allows a second-generation technique to explain the variance in the dependent variables when investigating the research model.

4.3.1 Path Model Estimation

Estimating the path model entails determining algorithmic options and parameter settings. Because the path weighting method of the available weighting schemes in PLS-SEM facilitates the highest R^2 value for the endogenous latent variable and provides the greatest general application for path models (Hair et al. 2016), the path weighting approach was selected. For every relationship in the structural and measurement model, the algorithm computes a standardized coefficient that estimates between -1 and +1. When considering relationships in the measurement model, using +1 as the initial value for all outer weights is recommended for the algorithm (Hair et al. 2016). The construction of the PLS-SEM algorithm requires that it computes until the results equalize. The stop criterion, which helps to facilitate that the PLS-SEM algorithm merges at appropriate levels, was set to .0000001. The maximum iterations were set to 300.

Missing data were minimized during the data collection process by notifying the student during the survey that a question was missed and requested an answer choice before moving forward in the survey. The nonparametric feature of PLS-SEM does not necessitate the data measure in a normal distribution. The general rule for skewness indicates a skewed number greater than +1 or less than -1and a number greater than +1 indicates an extreme peak and lower than -1extreme flatness (Hair et al. 2016). Indicators falling within the general rule at both t_0 and t_1 were removed: ISNA2, ISNA3, ISNA4, ISNA6, LOCI1, LOCI4, LOCP8, and OTE5.

The structural model depicted in Table 5 reveals that ATTt_0 provided the strongest effect on the intention toward accounting (.253), followed by moderating variables SAMt_0 (.333), and LOCt_0 (.198), moderating paths LOC SNt_0 (.168), SAM SNt_0 (.146) and OTE SNt_0 (.120). The constructs explain 45.6% of the variance of the endogenous construct INTt_0 (R^2 =.456). The general practice for determining significance is a path coefficient with a value above .20, while the values below .10 are typically not significant (Hair et al. 2016). The construct INTt_0 (.861) provided significance for INTt_1 followed by ATTt_1 (.137) while all the constructs

explain 92.1% (R^2 = .921) of the variance of the endogenous construct INTt_1. Based on the size of the path coefficients, the ATTt_0 to INTt_0, SAMt_0 to INTt_0, and INTt$_0$ to INTt_1 relationships are significant. Additionally, paths ATTt_0 to ATTt_1 (.595), PBCt_0 to PBCt_1 (.413) and SNt_0 to SNt_1 (.427) prove significant.

Table 5: Path Coefficients					
	ATTt_1	**INTt_0**	**INTt_1**	**PBC t_1**	**SN t_1**
ATTt_0	0.595	0.253			
ATT t_1			0.137		
INT t_0			0.861		
LOC ATT t_0		-0.029			
LOC ATT t_1			0.027		
LOC PBC t_0		0.061			
LOC PBC t_1			-0.033		
LOC SN t_0		0.168			
LOC SN t_1			-0.052		
LOC t_0		0.198			
LOC t_1			-0.001		
OTE ATT t_0		-0.100			
OTE ATT t_1			-0.006		
OTE PBC t_0		-0.185			
OTE PBC t_1			-0.008		
OTE SN t_0		0.120			
OTE SN t_1			0.059		
OTE t_0		0.059			
OTE t_1			-0.017		
PBC t_0		-0.375		0.413	
PBC t_1			0.001		
SAM ATT t_0		0.009			
SAM ATT t_1			-0.006		
SAM PBC t_0		-0.174			
SAM PBC t_1			-0.021		
SAM SN t_0		0.146			
SAM SN t_1			-0.023		
SAM t_0		0.333			
SAM t_1			0.044		
SN t_0		-0.048			0.427
SN t_1			0.080		

4.3.2 Measurement theory

Reflective and formative measurement models are two ways constructs are measured as specified by the measurement theory. The reflective indicator suggests that the construct causes the measurement of the indicator variable, while the formative indicators suggest a predictive relationship from the indicator variable to the construct. The assessment of the reflective measurement model is discussed in section 4.3.2.a, while section 4.3.2.b discusses the assessment of formative measurement models.

4.3.2.a Evaluation of Reflective Measurement Models

The assessment of reflective measures entails evaluating internal consistency, individual reliability, and average variance extracted (AVE). The following constructs maintain reflective indicators: LOC, OTE, SAM, and INT. An outer loading relevance test was administered. If the outer loading is < 0.40, it is recommended to delete the reflective indicator upon contemplating the impact on content validity (Hair et al. 2016). The list of items for reflective indicators is found in Appendix 7. The outer loading relevance testing with outer loadings less than 0.40 for reflective indicators is in Appendix 8.

The overall content validity improved with the removal of reflective indicators with outer loading of less than 0.40. Three more reflective indicators (LOCC3 at LOCt_0, LOCC10 at LOCt_1 and SAM8 at SAMt_1) were identified from the PLS-SEM algorithm with outer loading below 0.40. A list of the change in content validity is presented in Appendix 9.

The outer loading relevance test also evaluates outer loading that is ≥ 0.40 but < 0.70. It is recommended that indicators with outer loading falling within ≥ 0.40 but < 0.70 range should be eliminated if the composite reliability and AVE improve beyond the general threshold values (Hair et al. 2016). The reflective indicators within the range are in Appendix 10.

Removal of the reflective indicators revealed in the previous analysis permitted the remaining indicators to fall within appropriate ranges. Table 6 provides a summary of the reflective model assessment. As depicted in the table, all model evaluation criteria have been met, providing support for the measures' reliability and validity.

Table 6: Results Summary for Reflective Measurement Models							
		Convergent Validity			Internal Consistency Reliability		Discriminant Validity
		Loadings	Indicator Reliability	AVE	Composite Reliability	Cronbach's Alpha	
Latent Variable	Indicators	>0.70	>0.50	>0.50	>0.70	>0.70	HTMT confidence interval does not include 1
LOCt_0	LOCC8	.739	.546	.621	.865	.822	Yes
	LOCP5	.838	.702				
	LOCP6*	.615	.378				
	LOCP7	.926	.857				
LOCt_1	LOCC4	.813	.661	.684	.914	.892	Yes
	LOCC6*	.668	.446				
	LOCP3	.857	.734				
	LOCP5	.879	.773				
	LOCP6	.916	.839				
OTEt_0	OTE10	.879	.773	.625	.832	.730	Yes
	OTE8	.752	.566				
	OTE9	.732	.536				
OTEt_1	OTE10	.874	.764	.592	.852	.811	Yes
	OTE6	.790	.624				
	OTE7*	.670	.449				
	OTE9	.727	.529				
SAMt_0	SAM11	.860	.740	.775	.945	.928	Yes
	SAM12	.881	.776				
	SAM13	.840	.706				
	SAM14	.892	.796				
	SAM15	.925	.856				
SAMt_1	SAM11	.840	.706	.673	.912	.880	Yes
	SAM12	.804	.646				
	SAM13	.818	.670				
	SAM14	.836	.699				
	SAM15	.803	.645				

*Removal of Indicator with outer loading between 0.40 and 0.70 did not improve the composite reliability and AVE above the recommended thresholds.

4.3.2.b Evaluation of Formative Measurement Models

Several studies, Cohen and Hanno (1993), Allen (2004) and Tan and Laswad (2006) provide the basis for the formative indicators for constructs ATT, PBC, and SN. Review of the formative indicators is in Appendix 11.

The formative measurement model assessment procedure includes assessing formative measurement models for collinearity issues and evaluating the significance and relevance of the formative indicators. The collinearity of the indicators is measured by the outer variance inflation factor (VIF). A VIF value ≥ 5 may denote a collinearity problem (Hair et al. 2016). The formative indicators in the model all have VIF values less than 5. To review see Appendix 12.

The model does not denote critical levels of collinearity; therefore, further analysis examines the outer weights for the significance and relevance of the formative indicators. Bootstrapping maintains the PLS algorithm and includes the recommended (Hair et al. 2016) settings of 5,000 samples, complete bootstrapping results, bias-corrected and accelerated confidence interval method, two-tailed test type and 0.05 significance level. The contemplation of retaining or removing a formative indicator relies on the outer weight significance test. Hair et al. (2016) suggest that for outer weight significance, proceed with the analysis of the outer weight's absolute and relative size. On the other hand, if the outer weight does not prove significant, evaluate the formative indicator's outer loading. For the model, formative indicators that were not significant and possessed an outer loading of less than 0.5 were removed from the model. The following formative indicators IOATTA4, IOATTA9, ISNA5, PBCA1, PBCA2, PBC3, PBC5 at t_0 and PBC1 and PBC3 at t_1 were not significant but possessed an outer loading ≥ 0.5. The previous indicators were retained. The formative indicator IOATTA3 at t_1, which is significant but lacks absolute contribution is retained based on empirical support (Cohen and Hanno 1993, Allen 2004 and Tan and Laswad 2006). The decision-making process for keeping or deleting formative indicators is found in Appendix 13.

Table 7 summarizes the results for the constructs that measure formatively at t_0 and t_1, ATT, SN, and PBC by presenting the original outer weights estimates, *t* values, *p* values and the confidence intervals calculated from the percentile method.

Table 7: Formative Constructs Outer Weights Significance Testing Results							
Formative Indicator and Construct	**Outer Weights**	**Outer Loadings**	**T Values**	**P Values**	**95% BCa Confidence Interval**		**Significance (p<0.05)**
IOATTA10 -> Attitude t_0	0.6447	0.8968	3.1927	0.0014	0.2137	0.9671	Yes
IOATTA4 -> Attitude t_0	0.3482	0.7565	1.1037	0.2698	-0.3586	0.8556	No
IOATTA9 -> Attitude t_0	0.2339	0.6770	1.0893	0.2761	-0.1818	0.6661	No
ISNA1 -> SN t_0	0.8289	0.9882	2.6178	0.0089	0.1927	1.3975	Yes
ISNA5 -> SN t_0	0.2210	0.8184	0.5860	0.5579	-0.6312	0.8506	No
PBCA_1 -> PBC t_0	0.4649	0.8820	0.7959	0.4261	-0.8224	1.2578	No
PBCA_2 -> PBC t_0	0.2096	0.8646	0.3196	0.7493	-1.3137	1.3218	No
PBCA_3 -> PBC t_0	0.1651	0.8536	0.3601	0.7188	-0.8246	1.0277	No
PBCA_5 -> PBC t_0	0.3345	0.8007	0.8362	0.4031	-0.5645	1.0362	No
IOATTA1 -> Attitude t_1	0.5159	0.6972	2.3912	0.0168	0.0805	0.9220	Yes
IOATTA10 -> Attitude t_1	0.7003	0.7183	3.7487	0.0002	0.3441	1.0376	Yes
IOATTA3 -> Attitude t_1	-0.7811	0.3774	3.1441	0.0017	-1.3097	-0.3273	Yes
IOATTA4 -> Attitude t_1	0.6401	0.6750	2.7559	0.0059	0.1462	1.0176	Yes
ISNA1 -> SN t_1	0.4910	0.8474	2.5871	0.0097	0.0591	0.8192	Yes
ISNA5 -> SN t_1	0.6395	0.9132	3.5388	0.0004	0.2527	0.9594	Yes
PBCA_1 -> PBC t_1	0.6092	0.9471	0.7427	0.4577	-1.1400	1.6065	No
PBCA_3 -> PBC t_1	0.3767	0.8890	0.5972	0.5504	-0.8689	1.5578	No
PBCA_5 -> PBC t_1	0.1446	0.6095	0.2986	0.7652	-0.7501	1.0961	No

Figure 7 provides a graphical presentation of the partial least squared structural modeling.

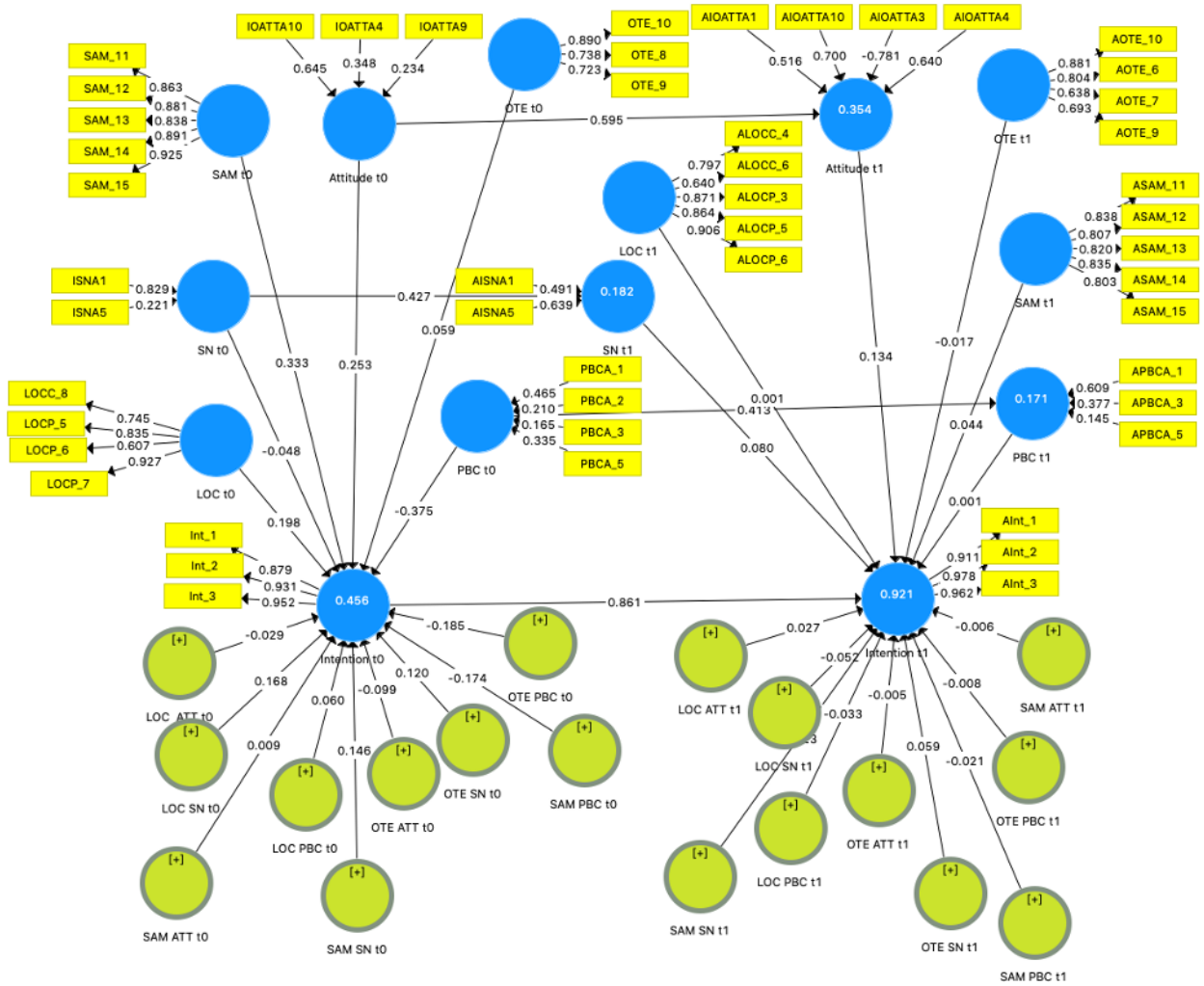

Figure 7: PLS-SEM

4.3.3 Moderating Variables

The path includes three moderating variables (Locus of Control, Openness to Experience, and Situation Motivation Achievement) that moderate each of the three constructs (Attitude, Subjective Norm, and Perceived Behavioral control). The moderating variables are continuous moderating variables that are presumed to fortify the relationship between attitude, subjective norm, and perceived behavioral control to the intention to select accounting as an academic major. Hence the following hypotheses were examined: H1: The direct relationship of attitude, subjective norm, and perceived behavioral control with

behavior intention is moderated by locus of control. H2: The direct relationship of attitude, subjective norm, and perceived behavioral control with behavior intention is moderated by openness to experience. H3: The direct relationship of attitude, subjective norm, and perceived behavioral control with behavior intention is moderated by situational achievement motivation. When a moderating variable is included in the PLS path model, an interaction term is necessary to assist with understanding changes when the moderating variable increases or decreases. In this study, the exogenous constructs are measured formatively; therefore, the two-stage approach is recommended to generate an analysis of the moderating variable (Hair et al. 2016).

4.3.3.a H1 Moderator Analysis

During stage one of the moderation analysis, the main effects model is estimated to determine the scores of the latent variables. The scores are used for additional analysis in stage two in which a single-item measure is created to measure the interaction term. When examining LOC and ATT, the interaction term LOCt_0 has a negative effect on INTt_0 (-0.029), while the simple effect of ATTt_0 to INTt_0 is .253. In other words, the results imply that the relationship between ATTt_0 and INTt_0 is .253 for an average level of LOCt_0. When LOC is increased by one standard deviation, a higher level of LOC, the relationship between ATTt_0 and INTt_0 decreases by the size of the interaction term (.253-.029=.224). Conversely, when LOC is decreased by one standard deviation, a lower level of LOC, the relationship between ATTt_0 and INTt_0 becomes .253+.029=.282. A slope analysis depicting the two-way interaction reveals a positive relationship between ATTt_0 and INTt_0 evidenced by the positive slope.

In the examination of LOC and SN, the interaction term LOCt_0 has a positive effect on INTt_0 (.168), whereas the simple effect of SNt_0 to INTt_0 is -.048. The indication that the relationship between SNt_0 and INTt_0 is -.048 for an average level of LOCt_0. At a higher level of LOCt_0, the relationship between SNt_0 and INTt_0 increases (-.048+.168=.120). At a lower level of LOCt_0, the relationship between SNt_0 and INTt_0 decreases (-.048-.168=-.216). The slope indicates a positive relationship between SNt_0 and INTt_0 at a higher level and a negative slope at the lower level.

The third construct PBCt_0 in the examination of LOC has a positive effect on INTt_0 (.061); like SNt_0, the simple effect of PBCt_0 to INTt_0 is -.375. At a higher level of LOC, the relationship between PBCt_0 and INTt_0 increases (-.375+.061=-.314). At the same time, at a

lower LOC, the relationship between PBCt_0 and INTt_0 decreases (-.375-.061=-.436). The slope analysis provides evidence of the negative relationship between PBCt_0 and INTt_0.

The bootstrapping procedure provides non-significant *p* values for moderating variable LOC on ATTt_0, SNt_0, and PBCt_0 to INTt_0 as .845, .187, and .734 respectively. The LOC moderating variable has a negative effect on ATT and positive effects on SN and PBC. However, the moderating relationship for all three constructs is not significant.

H1: The direct relationship of attitude, subjective norm, and perceived behavioral control to behavior intention is moderated by locus of control is supported.

Moderating slope plot located in Appendix 14.

4.3.3.b H2 Moderating Analysis

The examination of OTE and ATT, the interaction term OTEt_0 has a negative effect on INTt_0 (-0.100), while the simple effect of ATTt_0 to INTt_0 is .253. When OTE is increased by one standard deviation, a higher level of OTE, the relationship between ATTt_0 and INTt_0 decreases by the size of the interaction term (.253-.100=.153). When OTE is decreased by one standard deviation, a lower level of OTE, the relationship between ATTt_0 and INTt_0 becomes .253+.100=.353. A slope analysis depicting the two-way interaction reveals a positive relationship between ATTt0 and INTt0 evidenced by the positive slope.

In the examination of OTE and SN, the interaction term OTEt_0 has a positive effect on INTt_0 (.120), whereas the simple effect of SNt_0 to INTt_0 is -.048. The indication that the relationship between SNt_0 and INTt_0 is -.048 for an average level of OTEt_0. At a higher level of OTEt_0, the relationship between SNt_0 and INTt_0 increases (-.048+.120=.072). At a lower level of OTEt_0, the relationship between SNt_0 and INTt_0 decreases (-.048-.120=-.168). The slope indicates a positive relationship between SNt_0 and INTt_0 at a higher level and a negative slope at the lower level.

The third construct PBCt_0 in the examination of OTE has a negative effect on INTt_0 (-.185). The simple effect of PBCt_0 to INTt_0 is -.375. At a higher level of OTE, the relationship between PBCt_0 and INTt_0 decreases (-.375-.185=-.56). At a lower OTE, the relationship between PBCt_0 and INTt_0 increases (-.375+.185=-.19). The slope analysis provides evidence of the negative relationship between PBCt_0 and INTt_0.

The significance of the moderating effect is revealed during the bootstrapping procedure provided non-significant *p* values for moderating variable OTE on ATTt_0, SNt_0, and PBCt_0 to INTt_0 as .529, .452, and .263 respectively. The OTE moderating variable has a negative effect on ATT and PBC and a positive effect on SN. However, the moderating relationship for all three constructs is not significant.

H2: The direct relationship of attitude, subjective norm, and perceived behavioral control to behavior intention is moderated by openness to experience is supported.

Moderating slope plot located in Appendix 14.

4.3.3.c H3 Moderating Analysis

The final moderating relationship is SAM. The interaction term SAMt_0 has a positive effect on INTt_0 (.009), while the simple effect of ATTt_0 to INTt_0 is .253. When SAM is increased by one standard deviation, a higher level of SAM, the relationship between ATTt_0 and INTt_0 increases by the size of the interaction term (.253+.009=.262). When SAM is decreased by one standard deviation, a lower level of SAM, the relationship between ATTt_0 and INTt_0 becomes (.253-.009=.244). A slope analysis depicting the two-way interaction reveals a positive relationship between ATTt_0 and INTt_0 at a higher level and a negative slope at the lower level.

In the examination of SAM and SN, the interaction term SAMt_0 has a positive effect on INTt_0 (.146), whereas the simple effect of SNt_0 to INTt_0 is -.048. The indication that the relationship between SNt_0 and INTt_0 is -.048 for an average level of SAMt_0. At a higher level of SAMt_0, the relationship between SNt_0 and INTt_0 increases (-.048+.146=.098). At a lower level of SAMt_0, the relationship between SNt_0 and INTt_0 decreases (-.048-.146=-.194). The slope indicates a positive relationship between SNt_0 and INTt_0 evidenced by the positive slope.

The third construct PBCt_0 in the examination of SAM has a negative effect on INTt_0 (-.174). The simple effect of PBCt_0 to INTt_0 is -.375. At a higher level of SAM, the relationship between PBCt_0 and INTt_0 decreases (-.375-.174=-.549). At a lower SAM, the relationship between PBCt_0 and INTt_0 increases (-.375+.174=-.201). The slope analysis provides evidence of the negative relationship between PBCt_0 and INTt_0.

The bootstrapping procedure provides non-significant *p* values for moderating variable SAM on ATTt_0, SNt_0, and PBCt_0 to INTt_0 as .943, .379, and .216 respectively. The SAM

moderating variable has a positive effect on ATT and SN and a negative effect on PBC. However, the moderating relationship for all three constructs is not significant.

H3: The direct relationship of attitude, subjective norm, and perceived behavioral control to behavior intention is moderated by situational achievement motivation is supported.

Moderating slope plot located in Appendix 14.

4.4 Longitudinal PLS Model

Roemer (2016) suggest Model Type A.1, an evolution model, for panel data in which the objective is to examine the evolution of paths over time. Hence there is one PLS model with constructs at different times (t_0 and t_1). A consideration with the Model Type A.1 is the carry-over-effects. It is the effect from one construct at t_0 to the same construct at t_1.

Based on the results in Table 8, the effects of ATT on INT are positive and significant at t_0. However, the effect becomes insignificant at t_1. The SN construct has a negative effect on t_0 and a positive effect at t_1 with insignificant effects at both times. While PBC also had a negative effect on t_0 and a positive effect at t_1, the effect at t_0 is significant. The direct effect of attitude on intentions did not become stronger over time. On the other hand, both subjective norms and perceived behavioral control on intention became stronger from t_0 to t_1.

Table 8: Results of the test of significance of the direct effects and carry-over-effects

Type	Time	Effect	Path coefficient	T value	P value	Significance
Direct	t_0	ATT-INT	.253	2.122	.039	Yes
	t_1	ATT-INT	.134	1.781	.075	No
	t_0	SN-INT	-.048	0.355	.723	No
	t_1	SN-INT	.081	1.181	.238	No
	t_0	PBC-INT	-.375	2.343	.019	Yes
	t_1	PBC-INT	.001	0.010	.992	No
Carry-over effects	t_0/t_1	ATT-ATT	.595	7.482	.000	Yes
	t_0/t_1	SN-SN	.427	4.389	.000	Yes
	t_0/t_1	PBC-PBC	.413	2.893	.004	Yes
	t_0/t_1	INT-INT	.861	11.767	.000	Yes

Table 9 utilizes an approach from Roemer (2016) that depicts the path coefficients, the bias-corrected confidence interval (CI), the comparison of the path coefficients with the bias-corrected along with consideration regarding the placement of the coefficient inside or

outside the CI to determine significance. Table 9 shows that the direct effect of ATT to INT and SN to INT did not significantly change from t_0 to t_1. However, the direct effect of PBC to INT reveal positive significant change from t_0 to t_1.

Table 9: Results of the Test of Significance of the Changes in Path Coefficients

Type	Time	Effect	Path coefficient	Size of change	Bias-Corrected CI	Comparison	Within Range	Significant Change
Direct	t_0	ATT-INT	.253	-.119	(0.027; 0.491)	0.027<0.134<0.491	Yes	No
	t_1	ATT-INT	.134		(0.017; 0.316)	0.017<0.253<0.316	Yes	
	t_0	SN-INT	-.048	.129	(-0.404; 0.154)	-0.404<0.081<0.154	Yes	No
	t_1	SN-INT	.081		(-0.051; 0.205)	-0.051<-0.048<0.205	Yes	
	t_0	PBC-INT	-.375	.376	(-0.662; -0.121)	-0.121<0.001	No	Yes
	t_1	PBC-INT	.001		(-0.133; 0.116)	-0.375<-0.133	No	

4.5 Action Research Path 1 Convert existing CAU non-accounting students

The hypothesis testing allowed an analysis of the students at t_0 and t_1. However, the action research path strategy was primarily drawn from the results of t_0. The TPB measured the attitudes, subjective norms, and perceived behavioral control constructs. Additionally, LOC, OTE, and SAM were measured. This proved instrumental in developing the action that the students had a greater response propensity. For example, overall, the students scored high on internal LOC, OTE, and SAM, suggesting that new and different, motivational activities within their control may engage them. Consequently, the critical learning set implemented activities based on that information. The background factors to the TPB also served as an impetus for the activities for Path 1. Sources students use for gathering information, their exposure to various professions and accounting careers knowledge were also considerations for action activities.

Cycle 2 of Path 1 was also informed by the hypothesis testing. From the background questions, students indicated that they watch movies, but they did not have much experience watching accounting movies. The students also use TV and movie portrayals as a means for gathering information. The proposed accounting documentary satisfied that students watch movies and use TV/movie portrayals as a source of information.

The actions described in Section 3.5 reflect the role the hypothesis testing played in the action intervention.

Converting existing non-accounting CAU students to the accounting major alone, over time, could improve the number of accounting majors. Nonetheless, engaging high school students complements the effort. The conversion action activities provide guidance to activities and information suitable for high school students.

4.6 Action Research Path 2 Attract Georgia High School accounting students to CAU

As the respondent profile listed, accounting courses were provided at the high schools of 20 of the students under this study. Of the 20 students, 9 of them (45%) took the accounting course offered in high school. Of the four accounting majors from this study, 50% of them took accounting in high school. In addition to the literature review, this data confirmed for the critical action learning set that engaging Georgia High schools could be important to increasing accounting enrollment.

The Georgia Department of Education provides data regarding the finance career cluster pathway available to local school districts. Data was requested that would list all the schools offering the finance career cluster pathway. The data listed schools offering as well as schools with students enrolled in the courses. The analysis is based on schools where students are enrolled in the finance career cluster pathway. All the largest districts in Georgia offer the finance career cluster pathway in both high schools and middle schools and have students enrolled. For the 2017/2018 academic year, CAU had 16 1st year freshman accounting students. Students from the state of Georgia represent 25% of those accounting students. The students graduated from four different Georgia high schools, but all four high schools offer the finance career cluster pathway. This is consistent with the results of the hypothesis testing. All the business 1st-year freshman students for the 2017/2018 academic year from Georgia attended a high school where the finance career cluster pathway is offered.

The Accounting students at CAU participate in the Volunteer Income Tax Assistance (VITA) program sponsored by the IRS. The program offers tax assistance at no cost for the low income (typically $55,000 or less) earners (IRS 2018). CAU partners with the United Way of Atlanta to prepare taxes at a shopping mall located in the campus community. Most of the volunteer hours at the Westend VITA site are provided by the CAU students. The service-based learning provided by VITA has been beneficial for CAU accounting students. Many students volunteer beyond the course requirement and continue to volunteer beyond their matriculation at CAU. Although the CAU volunteers generally have some tax exposure through a tax class or personal finance class, a unique aspect of the VITA program is that

volunteers do not need prior tax experience. The IRS provides the required training to appropriately prepare tax returns for low- to moderate-income families.

Given the training provided by the IRS, high schools students have the opportunity to become IRS-certified tax preparers for low-to-moderate income taxpayers (USAToday 2013). A high school in Waco Texas, named a top VITA student program in the nation, prepared over 1,800 tax returns in a tax season (USAToday 2013). Georgia High schools have also participated in VITA programs with some individual schools preparing nearly 700 tax returns (AJC 2017).

The action learning set members, in which each member's students participate in VITA, has identified potential high schools in the metropolitan Atlanta area to pursue a VITA partnership for the 2020 tax season. While partnering with a local high school could allow high school students to interact with CAU students, introduce them to the CAU campus, and engage in tax work, there are several obstacles to consider. The Westend VITA site is located within the CAU campus community; however, the faculty advisors ensure that CAU students have access to University transportation to and from the Westend VITA site. High schools participating in the finance career pathway cluster pathway are not located within proximity to the Westend VITA site. Additionally, high school students may have limitations regarding their class schedule and availability to volunteer during the same times as the CAU students.

The VITA faculty advisor will meet with representatives from the targeted high schools to discuss the feasibility of the VITA partnership at the Westend VITA site. There are other VITA opportunities for CAU and high school students; for example, the United Way provides training; however, high school students may benefit from CAU students assisting with additional training. Also, CAU students can work with high school students with mock tax preparation sessions.

For the 2017/2018 academic year, CAU admitted 40 1st year freshman accounting students from the state of Georgia. However, only 16 of those accounting students became enrolled students. This may suggest that CAU may need to provide more information regarding the benefits of CAU's accounting program. As discussed, VITA could provide that opportunity.

Although the high school advisor referent indicator was removed during the formative modeling process, the parent referent was maintained. Information provided by high school representatives may serve as a parent's primary source regarding academic major, college,

and career choices. Hence the CAU accounting department has an opportunity to serve as subject matter experts to the high school community.

Relationships with Georgia high schools will help inform the high school community regarding the benefits of accounting and highlight the contribution CAU can make to achieving a career in accounting. It is important for students to recognize a specialty at CAU's accounting program that will influence them to select CAU.

4.7 Action Research Path 3 Niche Accounting Program

As the literature noted, faculty-led study abroad experiences may provide a supplement to the accounting curriculum regarding IFRS skills; however, African American students do not participate in study abroad programs. The high OTE score of the respondents would suggest that students may have a willingness to travel out of the United States. The SAM findings were more telling. For example, only the reflective indicators related to the accounting profession were maintained during the reflective modeling process. This confirmed for the critical learning set that a faculty-led study abroad could be attractive to accounting students.

The partnership with CIEE allowed the faculty leaders to design a program tailored for CAU accounting and finance students. The activities included:

- A tour of the Edge building, the greenest most intelligent building in the world (Bloomberg 2015)
- An international case discussion with a Deloitte Manager
- Tour of the University of Amsterdam
- IFRS lecture at Vrije Universiteit
- Tour of the Stock Exchange
- Community service with special needs children of color
- City Walking Tour
- Black Heritage Tour
- Tour of a community of startups

The students were able to learn about IFRS. However, the students were also able to connect with the black culture in Amsterdam. The Black Heritage Tour allowed the students to discover some of the similarities in the treatment and discrimination of blacks in the Netherlands and the United States. Additionally, the students spent an afternoon cooking and

drumming with children of color with special needs. Working with the children was consistent with the various service activities CAU students engage in with the CAU campus community.

A requirement of the study abroad course was for the students to prepare a reflective project to be used for recruitment and alumni engagement. Most of the students selected a media format for the reflection project. Below are exerts from written reflection projects:

Student 1

During spring break of the 2018-2019 school year, I traveled to Amsterdam, Netherlands, as a participant of the first study abroad trip facilitated by Clark Atlanta University's School of Business. It was undoubtedly one of the greatest personal, educational, and professional experiences of my life. Being immersed in Dutch culture for a full week provided me with a newfound perspective of many aspects of life that will be permanently embedded in me.

It was my first exposure to international travel and sparked a thirst to continue to travel abroad. I was able to be immersed in a new culture with many of my fellow colleagues, which helped to deepen our relationships. Several individuals that were prior acquaintances became friends because of this trip. I will forever be grateful for this experience.

Student 2

In the future, I hope to take these experiences with me as I travel the world and use what I learned to propel me forward in my career and to help others to be in the position that I am fortunate enough to be in.

Student 3

Going to Amsterdam was truly a life-changing experience. This may sound cliché, but it is true that your world perspective expands once you travel outside of your hometown. Initially, when I was presented with the opportunity to study abroad, it was a no brainer on applying. Through many of my business classes in Wright Young, the common theme besides the subject of business was its presence on a global scale. Being as though I had never had the opportunity to travel to a different continent, I saw the opportunity as imperative to my growth. Now that the trip is complete, I can say that it has and will continue to have an

impact on my life and perspective as a consultant and accountant. We experienced many activities on the trip, but my favorites include; the Deloitte office visit, the black heritage tour, community service, and Living Social Lab.

4.8 Conclusion

The path model estimation provided the standardized coefficients of the relationships between the constructs in addition to the R^2 values for the endogenous constructs. The constructs explained 45.6% of INT at t_0 and 92.1% at t_1. The evaluation of the reflective measurement model included internal consistency, convergent validity, and discriminant validity. The assessment of reflective indicators allowed for a model with indicators within established criteria. The formative measurement model was evaluated for collinearity between indicators and significance and relevance of outer weights. A model with formative indicators within established criteria emerged upon the examination of the formative indicators. The moderating analysis provided a hypothesis examination. The moderating effect of LOC, OTE, and SAM on constructs ATT, SN, and PBC proved non-significant. As hypothesized, LOC, OTE and SAM moderated constructs ATT, SN and PBC at various positive and negative levels.

While the longitudinal analysis showed that ATT did not become stronger from t_0 to t_1, SN and PBC did become stronger from t_0 to t_1. Furthermore, the direct effect of PBC to INT provided a significant change from t_0 to t_1.

In the effort to convert existing non-accounting CAU students, the results from t_0 guided the action activities to alter student perspective regarding accounting as an academic major. It does appear from the longitudinal analysis that the action activities over the five activities days between t_0 and t_1 did provide strength to the social norm and perceived behavioral control constructs of the TPB.

The analysis regarding establishing a relationship with high schools revealed the potential benefit of intentional recruitment at Georgia schools that offer the finance career cluster pathway. For the accounting majors from the sample and the CAU freshmen students from the 2017/2018 academic year, Georgia high schools offering accounting courses supplied half of the accounting majors to CAU.

The hypothesis testing supported the notion that accounting students would be willing to consider a study abroad experience. The student reflections demonstrate that the study abroad

course provided an indelible impression for the students. The blend of international travel and international financial reporting standards seems to be a tool to recruit and retain accounting students.

CHAPTER 5

DISCUSSION

Chapter 5: Discussion

5.1 Introduction

Chapter 5 provides a discussion of the study, actionable knowledge from the action paths, and the contribution to knowledge. Section 5.2 begins with a brief review of the work-based problem statement. A review of the methodology employed is in Section 5.3. Section 5.4 discusses the role of the action learning set, action research paths, cycles, and actionable knowledge. In Section 5.5, the theory of planned behavior actionable knowledge is discussed. Section 5.6 summarizes the hypotheses analysis. The contributions to knowledge are outlined in Section 5.7. The limitations of the study are considered in Section 5.8, and Section 5.9 provides final comments.

5.2 Review of Work-Base problem statement and Approach

The conceptualization of this research which had been emerging during the program, has focused on the decrease in accounting majors at CAU while other universities were experiencing growth. The problem yielded the research question: How does the perception of accounting impact the selection of the major at CAU? Given that insight, what can CAU do to impact the perception so that students will select accounting as a major? Further critical engagement in the learning set suggested that CAU may be better served by addressing the perception development at the high school level. Additionally, if students are selecting accounting on a larger scale, how does CAU attract students who are interested in accounting to CAU. What emerged was an action research project to increase the accounting student enrollment by (1) converting existing students to accounting majors, (2) establishing relationships with GA high schools to provide more accurate depictions of the accounting profession, (3) developing an accounting specialty that will draw students interested in accounting to CAU.

5.3 Review of Methodology

The research question was examined utilizing the TPB. The theory gives guidance to the intention of behavior based on three constructs: Attitude, Social Norms, and Perceived Behavioral control. Understanding the influences of the intended behavior yields an opportunity within the TPB framework to intervene or alter the intended behavior. The role that LOC, OTE, and SAM played on the relationship of the three TPB constructs during the

pretest on the intended behavior was used in the development of an action plan for the intervention. The theoretical model was analyzed using PLS-SEM.

5.4 Action Research

The critical action learning set utilized literature, experience, and data analysis to develop and implement three action research paths that would assist with the decline in accounting majors at CAU compared to other universities. The TPB presurvey was distributed to the students in the personal finance course, which is a compulsory course for all university students housed in the business school. The university curriculum plan is designed for this course to be taken by 1st-year students. The university requires students to declare a major by the end of the 2nd year.

5.4.1 Critical Action Learning Set

This section describes, using Keil's (2006) causal patterns, the discourse of the critical action learning set that contributed to the action implemented to address my work-based problem. The engagement from the critical action learning set demonstrates the decision-making process, the discussion to evaluate alternatives, and the catalyst for action and learning for my thesis.

During the sessions, we highlighted the points that we thought were the main issues that needed to be addressed. The points collectively provided a theme to guide the discussion. Our engagement was less formal than a decision tree, but there was intentionality in thinking through alternatives and encouraging inquiry. The learning set relied on experience, literature, and quantitative data to evaluate the consequences of the alternatives. Additionally, we experienced personal growth from negotiating personal preference and bias.

I formed my critical action learning set by inviting two colleagues to join me in investigating a dilemma for the accounting department. I discussed the role of a critical action learning set within action research and provided the AICPA Supply and Demand Trend Report (2017) and the CAU Trend book 2011 – 2015. I also shared that the TPB would provide the framework for action research. Neither colleague was surprised by the CAU report; however, both were unaware of an overall increase in accounting majors. Young wondered if the swing was also happening with finance majors. Hudson mentioned that the number of current finance students was primarily because of the ability to concentrate in Finance and Financial

Planning. Drs. Hudson and Young agreed to join me and were interested in how learning from this study could translate to the finance department.

Each set member described who they believed were the accounting department stakeholders. There was much overlap, particularly with corporations and potential employers. Similarity with corporations was a result of the previous corporate work experience and the lack of African American representation in our prior work environments. Hudson, who is a graduate of the CAU MBA program, was vocal about the role alumni could contribute. I concurred because I believed that accounting alumni could help propel and sustain the findings of this study. Young and I shared the importance of not losing sight of distinct careers in accounting. Young has an undergraduate degree in accounting but found that finance functions were more suitable for him, causing him to direct his career path toward more finance roles. On the other hand, my undergraduate degree is in finance, but an internship opportunity in accounting provided insight into the functions of an accounting department.

Hudson and Young both teach the personal finance course that is a business course newly required by all university students. Hudson, who is the Personal Finance program director, expressed the need to add personal finance sections to accommodate the increased number of students enrolled at CAU. They also shared the benefit of teaching students from other disciplines. Young further noted the success of biology students in the personal finance course.

The theme of the discourse was that the increased enrollment at CAU and access to all University students through the personal finance class could expose more students to the major of accounting. The learning set investigated alternatives for how to expose more students to the major of accounting.

<u>Alternative 1 – Identify high performing students in Introductory Accounting course</u>

It is common practice at CAU for faculty teaching introductory courses (accounting, management, and marketing) to woo high performing students to their discipline. Therefore, the learning set contemplated providing information regarding majoring in accounting to high performing students in the personal finance class. I shared that when I taught the 1st Principles of Accounting course that I would try to convert non-accounting students who performed well to accounting. I struggled with trying to change a student's mind about their major or career solely based on their performance in the 1st Principles of Accounting course. I was also conflicted as a parent because I would want my child to discuss an academic major

change with me first. I would have my child consider more than the success in that class. Furthermore, aren't good students good in most classes? Young noted that the attempt to have a biology student consider a business (finance or accounting) major was often met with a commitment to becoming a doctor fueled by a childhood dream.

As a set, we felt that identifying high performing students may speak to the skill set or the efficacy to perform well in business courses, but it did not address many of the factors students consider when selecting an academic major. As a result, we considered another alternative.

Alternative 2 – Use TPB to identify students for the accounting major

The learning set deliberated the use of the theory of planned behavior as a tool to identify students suitable for the accounting major. Although Young and Hudson were familiar with the TPB, they were unfamiliar with its use for behavior intervention. Hudson articulated that using the TPB framework would allow the students to assess for themselves if switching to a major in accounting would provide the outcomes important to them and people who influence them. It was also reiterated that the action activities would largely derive from their survey data.

Given the increase in University enrollment, we believed that this captive audience would provide good soil for converting non-accounting CAU students. It was decided to use the TPB to understand student perceptions about major in accounting and to facilitate activities to influence the perception positively. I thought that the CAU non-accounting conversion should be the primary focus, but based on the literature, there were other factors to consider for addressing the work-based problem. I suggested that we continue to contemplate complementary strategies to increase the number of accounting students.

I shared with the learning set the process to obtain the CPA license. I explained the education, experience, and exam requirements. We discussed literature (Allen 2004), which detailed the purpose of the additional hours requirement as well as the impact it had on students selecting accounting. Hudson mentioned that she was familiar with the author and could possibly arrange a meeting if we thought it would be helpful. We determined that the findings from the study were adequate for our purpose.

Path 1, expressed in section 5.4.1.a, is based on Alternative 2 – Use TPB to identify students for the accounting major. The consequence of the Alternative 2 discussion promoted other

themes leading to the action and learning yielding three complementary and concurrent action paths. The outcomes of the deliberation which are delineated in more detail in sections 5.4.1.a, 5.4.1.b, and 5.4.1.c.

5.4.1.a Path 1

This section outlines the critical action learning set discussion expounding Alternative 2 to formulate Action Path 1which is to convert, through a series of activities, existing non - accounting CAU students to the accounting major. Drs. Hudson, Young, and I were fortunate enough to have previous corporate careers. We also had the misfortune of corporate environments that lacked African American representation. I shared my attendance at professional conferences with few African Americans among the participants. Young expressed the diversity initiatives he was a part of in his various corporate environments. This discussion was bittersweet because we recognized our corporate success but highlighted the importance of assisting others to obtain corporate success. While data had not yet been collected, our personal recount and the literature review provided a basis in conjunction with the eventual data collection for planning the action.

The University uses Qualtrics as a tool to collect data. Each set member had experience using it. I mentioned that Qualtrics was easy to navigate on mobile devices. Young stated that I should consider giving extra credit to get more participation. He found it advantageous in the work he conducted (Young et al. 2018). Hudson also noted that it had become more common for students at CAU to expect a benefit for completing surveys. I am not a fan of extra credit besides the financial planning students were not my students. Regardless, I needed the students to participate. Given they were the professors who taught the most sections of the personal finance courses, I asked them to consider what would be feasible for them.

I stipulated that we limit the extra credit to students completing the pretest, action activity, and posttest. Young and Hudson had different methods for how they give extra credit. I suggested that we ensure that extra credit would be offered in all sections, but each professor would determine for themselves how it would benefit the student's grade. There would not be a penalty for not participating or not completing all three parts. Students were asked to complete a unique ID that would match pre-and post-testing. Students were asked in the posttest if they completed the action activities.

Once data were collected, we segmented the sections by background results and moderating results. Young noted some similarities for background results in the work he conducted (Young et al. 2018). We agreed that videos or websites were useful tools to transmit information to students. I summarized the results for LOC, OTE, and SAM. There was not much discussion other than that the results appeared favorable to the video approach we were considering.

Young and Hudson did not have time to view all the videos I selected for consideration with the action research. To respect their time, I provided summarizes of the videos. Subsequently, the videos were selected based on source, length, variety, diversity, and a sense of achievability. Whatever was presented to the students needed to either provide new insight, confirm existing awareness, or correct misinformation. Young was concerned about the length of the "4 Generations of African American CPAs video". I articulated that the 10-minute video presented four compelling stories of the journey to CPA licensure. My previous accounting classes found it to be inspirational. I suggested a few minutes to view the first story. Upon review, we agreed it would be advantageous to include. None of the videos specifically addressed salaries for accounting professionals. Therefore, Hudson and Young expressed that salary expectations or guidelines should be included in some type of format. I suggested the Robert Half salary guide. Both Hudson and Young had used the Robert Half guide as a salary resource and agreed it would be appropriate to inform students about salary.

The results of the action were perceived differently by the set members. Young voiced that given no change in majors was an indication that the actions did not convert existing non-accounting CAU students. I noted that the results reflected that more students would consider accounting, would like to major in accounting, and would like to pursue a career in accounting. Hudson noted that there should have been a means to follow up with students who were interested in accounting after the action. All of the members acknowledged that the momentum of accounting interest could be extended. While both were committed to my research, they both said that they could not provide more action opportunities within their personal finance classes. The outcome from the critical action learning set formed the action activities for the path and promoted learning for another cycle in Path 1 and the development of Paths 2 and 3.

5.4.1.b Path 2

An ancillary theme for the set was the need to consider connecting with high school students. The contribution of the critical action learning set discussion in the evolution of Action Path 2 is presented in this section. Hudson and Young voiced their passion for training high school students to become financially literate. Likewise, I shared my desire to reach high school students and reflected on times during my career when I participated in career days to promote the accounting profession. We all believed that an early connection with middle and high school students could help students navigate careers, learn money management, and see college as a viable option. Hudson further expressed the experience of working with high school students through sporting activities. As a result, we decided to include a 2nd Action Research Path to develop relationships with Georgia schools.

While the results from the survey noted that students taking accounting in high school represented 50% of the accounting majors did not prompt much discussion, the learning set was unaware of the number of Georgia high schools that offered the finance career cluster pathway. As we reviewed the list provided by the Georgia Program Specialist, it sparked a conversation on how to engage these high schools. Path 2, developing a relationship with Georgia High schools, prompted an evaluation of alternatives for how to establish a connection with the Georgia high school community.

Alternative 1 – Joint VITA site with local High Schools

Young noted that there are Georgia High Schools that participate in VITA. Given our current partnership with United Way and the Westend VITA site, he thought that VITA could be a vehicle to connect with a high school. We reviewed the list of schools to determine the proximity to CAU and the Westend VITA site. My first comment was the feasibility of high school students to volunteer during the day. Although we knew high schools participated in VITA, we did not know the logistics of the VITA site. Young, who takes responsibility for ensuring that University transportation is available for CAU students to volunteer, stressed the importance of safety for high school students traveling to the Westend VITA site. Hudson thought that a VITA partnership would benefit the accounting program but thought we lacked the necessary information to take action. I decided that at a later time, I could gather the appropriate information for the set to assess the feasibility for the next tax season. Consequently, we needed to consider a timelier alternative.

Alternative 2 – Provide VITA training for local high school students

I voiced that assisting with VITA training for high school students could provide a more immediate impact. We agreed to investigate assisting high school students with VITA training as a means to attract students to the accounting program at CAU. While the potential VITA relationship requires additional learning, the outcome from the discourse provided a means to network with the high school community.

5.4.1.c Path 3

Another subsidiary theme for the learning set was to excogitate creating a niche program. The critical action learning set analysis providing action and learning for action Path 3 is articulated in this section. As an action learning set, we were proud of the accolades of the Business school. We began to ponder what could draw students to the accounting program.

Hudson secured corporate partnerships for her financial planning program and thought activities sponsored by corporate partners could be an attraction for accounting students. While I thought corporate partnerships could advance the program, the fact that students, in general, are already selecting accounting, I pushed to consider more of a unique skill set or experience that an accounting student would encounter by attending CAU's accounting program. We decided that developing a niche program should be the 3rd Action Research Path.

Alternative 1 – Faculty-led study abroad

I shared literature (Phillips 2018 and Esmieu et al. 2016) with the learning set that discussed the lack of preparation for IFRS in accounting programs and the minimal minority participation in study abroad. Esmieu et al. (2016) note the benefits of faculty-led study abroad programs to attract students to study abroad. We all joked about whether our students would want to spend time with us outside of the class. Each member shared experiences of activities with students who had graduated, but our time with existing students outside of the class was primarily through clubs, case competitions, or sporting events. Young then shared that upon reflection, several student interactions came to mind that demonstrated a relationship with students outside of the classroom.

Similarly, Hudson and I shared that some interactions with students were natural and just happened. I highlighted that accounting professor reflective indicators for SAM were maintained during the structural equation modeling process. I furthered noted that the high OTE scores were an indicator that students may be inclined to travel abroad. I explained that a faculty-led study abroad could accomplish IFRS skills while encouraging minority students to study abroad. Young teaches the International Finance course and requires a semester project that primarily focuses on African countries. He was in favor of an African country study abroad endeavor. I thought European travel might be more appropriate given the IFRS standards practice in Europe. Studying IFRS is an upper-level accounting concept; therefore, I stressed the importance of accounting and finance student exclusivity

Our experience in the school of business revealed that "different and new" could be a challenge and met with resistance. A set member suggested that we list the areas and people that would need to be engaged to get an accounting/finance faculty-led study abroad program up and running. A set member then suggested that we discuss which people we expected the most resistance from and the consequences of going around them. I am less inclined to circumvent processes and advocated that we move judiciously. We surmised that those critical to the process which extended beyond the school of business would be allies of our efforts. I asked Hudson to join me for the faculty-led study abroad. The critical action learning set discourse produced a faculty-led study abroad outcome for the 3rd Action Path.

The learning set believed that Alternative 1 provided a unique benefit to students, faculty, and the University; therefore, we did not consider an alternate niche program. However, the learning set negotiated the destination and the pathway for study abroad program approval.

The critical action learning discussions provided a means for set members to work with data that was collected, mull over other empirical material, and make sense of the learning during various stages of the study.

The primary theme was to convert existing non-accounting CAU students to the accounting major. The alternatives (1 and 2) exploring how to convert students were superordinate to Alternative 2, expanding to Action Path 1. The ancillary themes to connect with high school students and develop a niche accounting program yielded Action Paths 2 and 3. The alternatives contemplated for Action Paths 2 and 3 were subordinate to the Action Paths.

5.4.2 Convert Existing CAU students Action Path

This study gathered background questions to ATT, SN, and PBC of the TPB to assist with intervention. The background questions which contributed to the action plans for all three action research paths were limited in previous studies (Cohen and Hanno 1993; Allen 2004; and Tan Laswad 2006).

Allen (2004) and Tan and Laswad (2006) in TPB studies surveyed students in the introductory accounting course to determine intention on an academic major which at CAU is scheduled for the 1st semester of the 2nd year on the curriculum plan. Cohen and Hanno (1993) and Mbawuni and Nimako (2015) inquired upper level and business and accounting students, respectively. Additionally, Hunt et al. (2011) and Hartwell et al. (2005) note that the early years in college or high school is when students select academic majors. Because we wanted to understand the academic major selection process with the potential to immediately influence the academic selection process, the compulsory personal finance course, intended for 1st-year students, housed in the business school was selected to provide the greatest opportunity for conversion. The number of the 1st year enrolled students at CAU, and the number of personal finance course sections available suggested that students other than 1st-year students would be enrolled in the personal finance course, but it was expected that the majority of the students would be 1st and 2nd-year students. These students could select accounting as a major without extending the undergraduate program. What was learned from the survey was that 1st-year students only make up 2.4% of the course enrollment. Therefore, the pool for conversion for existing CAU students without adding to the matriculation time was limited to 38.5% (2.4% 1st year and 36.1 % 2nd year) of the students.

Ferratt et al. (2010) grouped students in their study by the likelihood of conversion to a different major. Several studies (Nelson et al. 2002; Mauldin et al. 2000; Geiger and Ogilby 2000) suggest that the sophomore year and the 1st accounting course is the most productive time for students to select accounting as a major. Although the goal was to expose all 1st-year CAU students to the accounting major and careers in accounting, in a future cycle, it may be more beneficial to target business students in the introductory accounting course.

Although it is noted by Gabre et al. (2015) that there is an insufficiency in accounting role models for African American students, other business professional represents 57.8% of the parent occupations of the students in this study. This is consistent with the parent occupation in Cohen and Hanno (1993). Parents who are not accountants, but other business

professionals may not serve as advocates for the accounting profession, but they may have a reasonable understanding of the role of accounting. Additionally, parents were a strong referent for CAU students.

A small percentage (10.8%) of the CAU students took an accounting/bookkeeping course in high school compared to roughly 50% of students in the Tan and Laswad (2006) study. This may suggest that we may need to improve engagement at feeder high schools. A more thorough discussion is found in section 5.4.2.

The findings for t_0 revealed that CAU students were limited in their knowledge of accounting responsibilities and career paths and were unclear about the starting salaries of accountants. This is different from Allen (2004) and Chen et al. (2005) studies where students sought accounting majors for the high initial salary. Behn et al. (2012) found that students believe that accounting careers are limited to auditing and taxation. Likewise, CAU students believe accountants have careers as tax accountants but overwhelmingly (87.8%) they believe accountants function as management accountants.

LOC, OTE, and SAM scores show that students expect to have control over their lives, are willing to try new things, and respond to motivation from peers, professors, and accounting professionals, respectively. Students were not familiar with TV/movies with an accounting storyline; however, they do use TV/movie portrayal as a source of information. The medium for students obtaining information was the internet, professionals in the field, and informational videos. Young et al. (2018) also noted the same information sources for African Americans. This insight was the basis for creating an action plan to implement.

5.4.2.a Cycle One

In the intervention implemented by Armitage (2010), students ranked experimental intervention (interview questions and messages to address responses) favorably. Similarly, this study asked background questions targeted to alter attitude, subjective norm, and perceived behavioral control. The activities sought to address any insufficiencies in information students possessed.

Students were given six videos to watch over a five-day period that would educate them in areas where they had no knowledge or were misinformed. Also included in the activities was a salary guide for accounting and finance professionals. Participation in the action provided mixed information. For example, 188 students completed the pre-survey, and 129 students

completed the post-survey. It is unclear how many of the 188 students completing the pre-survey participated in the action but chose not to complete the post-survey. It is known that 46 students who did not complete the pre-survey participated in the action. Perhaps as the survey SAM score suggested, students were motivated by the participation of their peers.

What was learned from the post-survey was that students better understand the different careers in accounting (89.9%), students view accounting professionals more positively (77.5%), students have an improved knowledge of the work of accounting professionals (86.1%), students understand that there are successful African Americans (89.2%), and students understand the salary range for accounting professionals (87.6%). In fact, half of the students wanted more information regarding accounting (50.4%). The number of students selecting accounting as a major did not improve; however, 31% of the students would consider a major in accounting, 21% would like to major in accounting, and 20.9% would like to pursue a career in accounting. The lack of improvement in the number of accounting majors at the post-survey was not surprising given the number of upperclassmen enrolled in the course. Students can change their major at any time during their matriculation; however, a change in major as a junior or senior, which represents 61.5% of the students, could prolong undergraduate studies.

On the other hand, it could allow students to make a more beneficial career choice. Young et al. (2018) noted that career-oriented factors, rather than subject matter interest influenced major selection for African Americans. For this study, the interest in accounting seemed to improve, yet students did not change their major.

The action provided students with activities that were informational, engaging, and enhanced their perception of accounting. It also seemed to provide clarity for students to assess their skills to determine whether they could be successful in accounting. For example, fewer students believe that they have the skills to be successful in accounting (59.7%). This is not discouraging because it permits the discipline to target the skill areas where students feel inadequate.

5.4.2.b Cycle Two

An accounting event in collaboration with the IMA organization was planned to present an accounting documentary "All the Queen's Horses" by Kelly Richmond Pope as a departmental movie night. Kelly Richmond Pope is an African American female CPA and

Ph.D. at DePaul University. The event had more attendees than the other accounting events hosted by the department.

What was learned from the success of presenting "All the Queen's Horses" by Kelly Richmond Pope was the benefit of collaborating with the student IMA chapter to use social media for marketing the event. This allowed the invitation to extend beyond accounting students. Also, the documentary style movie was appealing to the students. Documentary TV is now a genre offered on leading internet entertainment services such as Netflix and Hulu. It also provided greater exposure to the newly chartered IMA student chapter, which can be used to attract students to an accounting program (Sergeant et al. 2019).

A critical learning outcome from this action research path was the inability to identify the specific students who were interested in accounting or wanted more information. Students were presented with the researcher's contact information during all activities and events; however, students did not make contact. The strategy for student follow- up must be considered for future cycles.

5.4.3 Connect with Georgia High Schools Action Path

The literature suggested that students select an academic major during high school. The experience of the learning set concurred that students develop their propensity for a major before attending CAU. The learning set proposed a plan to connect with the high schools in Georgia.

5.4.3.a Cycle One

The Georgia Department of Education provides an accounting career pathway for middle and high school students. The relationship has been established with the leaders of the department. The researcher provided accounting curriculum development and has an opportunity to serve as a judge for a statewide high school business competition.

What was learned from engaging with the Georgia Department of education administration was CAU could service the high school community by assisting with curriculum development and serving as a knowledge base for teachers and guidance counselors. Ensuring that guidance counselors have accurate and current information regarding the accounting major and accounting careers is important given 36.1% of the students from the CAU survey noted that they used information from their high school counselor in making an academic major selection. Daly (2005) noted that People of Color valued opinions of career

advisors more than whites. Direct contact with students may be limited; however, high schools are receptive to CAU professors and alumni speaking in individual classes and career days.

5.4.4 Create Department Niche Action Path

There is a general increase in the students interested in accounting and selecting it as an academic major. CAU needs an accounting specialty that will draw accounting students to CAU. African American students are less likely to participate in study abroad programs than their white counterparts. Contemporaneously, the accounting curriculum which requires training in the US generally accepted accounting principles makes it difficult to study abroad in countries that train in IFRS without prolonging the time in the undergraduate program. Also, Grubb et al. (2007) note that many accounting students would prefer to obtain a career at a multinational corporation instead of small-medium organizations.

The faculty-led study abroad to Amsterdam by accounting and finance students provided a wealth of actionable knowledge. The researcher operated as a change agent in proposing a discipline-specific study abroad program. This type of study abroad program was new for the school of business and African American students (only 3.6% study abroad students are African American, Penn Center for Minority Serving Institutions, Esmieu et al. 2016). While the learning outcomes of the study abroad course were rooted in international financial reporting standards (IFRS) to meet AACSB requirements, the development of the course was equally focused on personal development, interpersonal relations, team development and organizational learning (Raelin 2010).

The school of business recognized that the global mission of the business school was non-existed for undergraduate business students. The curriculum for accounting students limits students traveling abroad. Furthermore, the growth of multinational corporations has propelled the need for global accountants. The study abroad approval process was interdepartmental, including the department of academic affairs and the international department. After the initial obstacles related to the accounting department chair, the University welcomed the opportunity for the students. It became more apparent that not having a business study abroad program was less about the lack of University support and was more about the lack of a champion for the program and lack of department support.

The number of applications to the program was more than expected. We learned that faculty-led study abroad programs seemed to be more appealing to our students. The study abroad

students noted that their experience in Amsterdam was "life-changing." The study from Penn Center for Minority Serving Institutions (Esmieu et al. 2016) report that faculty-led study abroad assists with recruitment, retention, and graduation rate. During the trip debriefing, students expressed a greater commitment to a career in accounting. Because the course teaches IFRS, it is an upper-level course. Accounting students in their 1st and 2nd year of study have inquired about the process to apply for the program next year. Additionally, other faculty members have expressed interest in study abroad programs for their discipline.

Informally, the faculty leaders have talked with several potential accounting students and their families about the study abroad program. Both the students and their parents indicated that they were not aware of a similar program at other HBCUs they were considering for enrollment. The result of the study abroad program seems to confirm the Penn Center (Esmieu et al. 2016) report. Therefore, the study abroad experience will formally become a part of recruitment. The reflection projects that the students completed for the study abroad course will be on display at open house events, and students and or faculty will be available for questions.

The Penn Center (Esmieu et al. 2016) report also notes the value to faculty participating in study abroad. The opportunity to discuss international standards and innovated strategies for startups in Amsterdam helped me professionally. The cultural experience we had with children of color in Amsterdam was impactful to how I viewed Amsterdam and the United States and created an ancestral bond.

5.5 Theory of Planned Behavior Actionable Knowledge

The TPB revealed that ATT, SAM, and LOC provided the strongest effect on INT. However, SAM was the only moderating variable that positively impacted ATT. This appears consistent with the action research cycles given the activities that had peer and professor influence (accounting documentary and study abroad) were favorably received by students. Additionally, during the PLS-SEM reflective modeling assessment, SAM indicators maintained the largest number of indicators with appropriate convergent validity, internal consistency reliability, and discriminant validity. This suggests that accounting student ambassadors could motivate students to accounting. Likewise, opportunities to engage professors outside of the class (like spring break international travel) could motivate students to accounting. The positive effect SAM has on ATT could ultimately lead to students choosing accounting as an academic major.

All the moderating paths (LOC, SAM, and OTE) influenced SN. The implication is that students value referents, but the views of referents may not lead to changing their academic major selection. The survey noted that at t_1, students were more aware of their ability to be successful in accounting. LOC was the only moderating variable to impact PBC positively. This may suggest that students feel some level of control over the skills necessary in accounting.

5.6 Hypotheses Analysis

The hypotheses related to the TPB with the moderating variable of LOC, OTE, and SAM. The PLS-SEM analysis provided by SmartPLS 3.2.8 (Ringle et al. 2015) yielded a model with the best suited reflective and formative indicators for the latent constructs and moderating variables.

H1: The direct relationship of attitude, subjective norm, and perceived behavioral control to intention is moderated by locus of control.

The results of the PLS-SEM analysis showed that the LOC moderating variable has a negative effect on ATT and positive effects on SN and PBC. However, the moderating relationship for all three constructs is not significant.

H2: The direct relationship of attitude, subjective norm, and perceived behavioral control to intention is moderated by openness to experience.

The OTE moderating variable has a negative effect on ATT and PBC and a positive effect on SN. However, the moderating relationship for all three constructs is not significant.

H3: The direct relationship of attitude, subjective norm, and perceived behavioral control to intention is moderated by situational achievement motivation.

The SAM moderating variable has a positive effect on ATT and SN and a negative effect on PBC. However, the moderating relationship for all three constructs is not significant.

The analysis also indicated that the effect of ATT on INT at the presurvey is positive and significant but becomes insignificant at the post-survey. The effect of SN on INT changes from negative at presurvey to positive at post-survey; however, both are insignificant.

Likewise, the effect of PBC on INT changed from negative to positive from presurvey to post-survey, but it was significant at presurvey.

5.7 Contribution to Knowledge

This action research project focused on a scholarly approach for examining a practitioner dilemma utilizing a collaborative means to create actionable knowledge. The actionable knowledge has been discussed in detail in previous sections of this chapter. The study also yielded contributions to the body of knowledge.

5.7.1 Evidence-Based knowledge to Improve Accounting Majors Contribution

The literature provides ample studies that utilize the TPB to evaluate the three constructs, ATT, SN, and PBC on the intention to select accounting as a major. Although there are studies that utilize the TPB to alter intended behavior, there were no known studies that intervened with selecting accounting as a major. This study contributes to the body of knowledge by providing evidenced-based knowledge to show that the perception of accounting can be positively influenced and can potentially improve the number of accounting majors.

The post-survey proves that student perception was improved. Students had a better understanding regarding the accounting profession – their view or interpretation was different as a result of concrete logical facts. However, the perception changes did not necessarily lead to an attitude change given students did not change the behavior from non-accounting major to an accounting major.

Although the number of accounting majors, in general, is increasing, the fact that students at the post-survey were willing to consider accounting as a major should inform accounting departments and the accounting profession to reach more students interested in the profession. For programs like CAU, the study suggests that there are opportunities for accounting departments to convert existing non-accounting students.

The evidence shows that CAU can become a resource for high school accounting programs. Because of the contact with the Georgia Department of Education, CAU provided feedback on curriculum changes to the finance career cluster pathway. The high school objectives were comparable to the AACSB standards at the university level. Additionally, CAU provided contact information to assist with accounting speaking needs and to answer questions from teachers or guidance counselors. The results of this study suggest that CAU students from

Georgia are likely to select accounting if their high school offered an accounting course. Therefore, accounting departments may want to target high schools that offer accounting.

The evidence from this study suggests that a faculty-led accounting study abroad program can attract students to the accounting program. Accounting faculty-led study abroad programs are not consistently offered at HBCUs (Penn 2016). The indelible impressions the study abroad had on the student participants allows them to become ambassadors for the accounting program. The reflection projects completed by the students are used to recruit accounting students. The IFRS study abroad course teaches the international standards, provides an international experience, and facilitates personal growth for students and faculty.

Given the evidence in this study, the body of knowledge regarding students selecting accounting as a major and attracting accounting students to an accounting program is better informed.

5.7.2 Moderating Variable and Intervention on the TPB Contribution

From the literature, two directives, (1) change the prior circumstance of intentions that impel the behavior, and (2) removal of obstacles to the targeted behavior were noted for changing intention. This study also included the moderating variables LOC, OTE, and SAM to inform the intervention.

The use of moderating variables in accounting major intervention fills an area the is not readily discussed in the literature. In the TPB model, the background factors contribute to how ATT, SN, and PBC are formed. Therefore, the intervention prescribed by the theory seeks to adjust the antecedent or eliminate the barriers. Considering the moderating variables added a layer of knowledge that identified activities that the student would find appealing. The personality traits assisted student receptibility to participate in the activity and to consider the information being shared.

The students scored high in internal LOC, OTE, and SAM. This result may be interesting in an African-American community because the experience in the African American culture and the perceived perception of other racial groups towards African Americans suggest that African Americans do not believe that they can control the events in their lives, are not receptive to new things or motivated to achieve. This study is inconclusive regarding why some students (46) who did not complete the pretest and therefore were not incentivized to

participate in the activities and complete the survey. It is presumed that the activities were engaging to students that it prompted other students to participate.

Given the benefits of adding moderating variables to the intervention feature of the TPB as used in this study, the body of knowledge is better informed regarding the TPB intervention strategies.

5.7.3 Contextual Knowledge Contribution

This study was undertaken to examine a problem faced by the University. The study provides an African American perspective regarding the components that encourage or deter the selection of an accounting major. While business schools develop business leaders to solve business problems, and the accounting profession provides financial information to make informed decisions, the academy does not always follow the same approach for solving problems.

CAU, which is a private institution, relies primarily on student enrollment to maintain the operations of the university. The higher education industry has moved toward student-centered initiatives. The intersection of enrollment needs, and student needs could prove problematic. This study provides a student-centered approach to improve student enrollment. The intervention activities provided information in areas that the student self-reported as deficient. The activities at a basic level were designed to share facts about accounting and the profession, on a higher level the activities either sparked an interest in accounting or confirmed the student's current choice in a major. Whichever result was obtained could be positive for the students.

Likewise, the relationship with local high schools would add value to the high school community (parents, teachers, counselors, and students) by being an accounting resource for them. The faculty-led study abroad also promotes enrollment with a student-centered approach.

Another area of contribution from this study within the context of higher education is the collaboration of fellow researchers. It is not unusual to coauthor research; however, it is unusual in the United States to engage in critical action learning sets to generate actionable knowledge. This study presents my research, but the critical action learning set was a collaborative effort to examine work-based problems experience by each set member.

The actionable knowledge generated from this study provides a sustainable approach to increase the number of accounting students. Therefore, the body of knowledge regarding declines in accounting enrollment is better informed. Additionally, this study contributes to the body of knowledge regarding the value of critical action learning sets to solve dilemmas in higher education.

5.7.4 Social Intersectionality Contribution

Although this study examined the decline in accounting students at CAU, the study finds relevance given the underrepresented groups in the accounting profession. Universities that are experiencing an increase in accounting majors are stilled faced with the lack of representation of women and African Americans in the accounting profession. The student profile at CAU comprises low-income students who are typically first in their families to attend college. Therefore, the social identities from this study include but are not limited to African American, female, and socioeconomic status.

I fit the social intersectionality defined in this study and realized because of this study how these identities individually and collectively have impacted my career in accounting. Given the dominance of millennials in the workplace, my age has become an additional identity that impacts my career in accounting. The social intersectionality I experience fuels my desire to encourage underrepresented groups to consider a career in accounting.

The profile of the students in this study and limited knowledge available regarding how social intersectionality impacts students selecting accounting and sustaining careers in accounting informs the body of knowledge. This study contributes to understanding the attitudes, perceptions, behaviors, and experiences of the blended identities from this study.

5.8 Limitations

The university has a backlog of upperclassmen enrolled in the lower level personal finance class; therefore, students engaging in the intervention activities may be interested but not likely to change majors. There needed to be a tool for following up with 1st or 2nd-year students that were interested in accounting after the intervention. The sparked interest may not have been enough to take action in changing the major. The inability to use class time to complete the posttest contributed to attrition from pre to post-test. There was no way to determine what motivated the students who did not take the pretest to take the post-test.

5.9 Conclusion

A better understanding of the perceptions of accounting that impact the selection of a major can aid CAU with an opportunity to increase the number of accounting majors at CAU. Insight into the timeframe when students select an academic major can influence the activities that accounting faculty engage that could provide interaction with middle and high school students. Finally, the profession is transitioning from scarcity to sufficiency. CAU has to provide an attraction for the accounting students to attend CAU. As a result of the study, I have a widened perspective of my role as an educator with my students, the university and local high schools, I was able to influence institutional policies regarding study abroad programs and reshaped the landscape of student support with faculty-student engagement.

CHAPTER 6

SCHOLAR/PRACTITIONER JOURNEY AND CONCLUSION

Chapter 6: Scholar/Practitioner Journey and Conclusion

6.1 Introduction

Chapter 6 describes the course of academic and personal development experienced during the journey of conducting doctoral research. In Section 6.2, the development of my work-based problem is detailed. Section 6.3 begins my consideration for the approach to address the problem. It includes determining the action research modality, reviewing indicators leading to a quantitative study, and establishing the action research cycles. The focus of Section 6.4 is a personal rumination of the goals achieved through the DBA program. Section 6.5 offers a conclusion to my journey. Lastly, Section 6.6 concludes the study.

6.2 Problem Statement Development

My frame of reference for an accounting profession had been a rewarding and fruitful career. However, when I attended professional conferences and gatherings, I was constantly cognizant of the lack of representation of females and minorities. I was able to manage a successful career in an industry with an absence of females and minorities because my practice was in the city of Atlanta which has a large minority population and I was intentional that my networks included other minority practitioners. As a CPA and employer of accounting students in the field, I experienced a low supply of accounting graduates spanning approximately ten years from the early 2000s. Working at CAU provided an opportunity for me to deliberately advocate the accounting profession to students. While the profession was beginning to see a turnaround in the supply of accounting graduates, I noticed that at CAU over a span of five years, we would have a two to three student decline. What seemed unusual was that the University and Business school were undergoing an increase in enrollment. Given my favorable career in accounting, I believed that accounting was a desirable profession for everyone. Consequently, I could not understand why CAU students were not selecting accounting as a major like students at other universities were. The trend was also unsettling for me and the department because CAU is one of the few AACSB accredited private HBCUs and the majority (53.4%) of African American CPAs matriculated at private HBCUs (Gabre et al. 2015). It became necessary to understand what contributes to selecting an academic major.

I reflected on the process I took when I negotiated my academic major. My path to selecting a business major as an undergraduate student was guided by what seemed to be a natural ability to lead and reason through problems. I perceived "business people" as thinkers,

problem solvers, and high-income earners. My parents, who were very influential in my life believed that I could be successful in any academic major but seemed pleased with a decision to seek a degree in business. Another family member who had recently earned a business degree, however, was more articulate in suggesting that finance or accounting would serve me well with a lasting, fulfilling career. I did not view myself and nor did my standardized test scores tag me as an overachiever in math. I defined what I wanted my outcomes to be from obtaining a business degree and sought out those things that would assist with obtaining the outcomes. I believed that I had some input in accomplishing my goals.

My three daughters who were at the stage of determining their academic majors during my DBA journey had similarities to my account, but varied tracks to get there. My husband and I are both accounting and finance professionals, yet all three daughters were drawn to the sciences. Two of my three daughters had chronic medical conditions that they had to manage in their daily lives. So, at an early age, they were all passionate about helping people. They were not hindered by the amount of time or cost it would take to become a medical doctor. Contemporaneously, they performed well in science and math. My oldest daughter changed her major from biology-premedical to law and public policy at the end of her sophomore year. Her switch was not because she did not do well in science – she ended up minoring in biology. What she found was enjoyment and a high capacity with writing that her professors confirmed with their evaluation of her work. My oldest daughter was able to see a connection between writing, law, and helping people. My middle daughter shifted to pharmaceutical studies. This was fueled by her familiarity with both positive and negative consequences of taking medications. The ability to help people through the accounting profession did not seem tangible to my daughters. The experiences of my daughters contributed to my research topic because they fit three of the demographics of the current undergraduate students at CAU (age, race, and gender). More importantly, their experiences helped me realize that students may have professional role models, referent influence, and appropriate skill set for an academic major, but enjoyment and passion also contribute to the fit for an academic major.

I surmised from my reflection that being an ambassador for accounting to the students at CAU was not going to be enough to attract students but students changing majors was plausible. Given the AICPA report, the overall problem was not students selecting accounting as a major. Likewise, the enrollment reports at CAU reveal an increase in

enrollment. I had to gain insight into what contributed to students at CAU selecting a major. More specifically, how could I alter that process for a positive shift to accounting.

6.3 Research Conceptualization

I was drawn to quantitative studies primarily because I process numerical data well and it is my goal to develop as a publisher in accounting in the United States of American which has a high incidence of quantitative studies. The other consideration was the selection of the approach within action research to be used.

6.3.1 Critical Action Learning Set

I decided to use critical action learning set for one main reason; I had first-hand knowledge of the benefits of the peer contributions. Additionally, I was considering learning set members who were also a part of the department. They were finance professors and were trying to combat similar challenges in their discipline. They shared my plight, but they were also junior faculty who embraced the importance of addressing business school issues. They could be allies in my action endeavors, but I did not want them to experience any repercussions for supporting my work. The greatest challenge for me selecting a learning set modality was that it was heavily dependent upon other people. While I found partnering and collaborations to be a valuable means to work through projects, I was concerned that my thesis work could be at risk because of the reliance on my learning set. My learning set members would have to commit to participating in the set and seeing the process through. I had shared my DBA studies with my colleagues, and we had worked on a couple of student engagement projects before. Based on my relationship and interactions with Drs. Hudson and Young, I believed they would be excellent comrades in working through organizational issues and developing professionally and personally. I met with them individually and explained the concept of critical action learning. Both professors enthusiastically acceded to participate in the learning set. They were also intrigued by a new learning concept that would help them resolve work-based issues.

6.3.2 Quantitative Study

I started the DBA program with an intention to engage in quantitative research. Tenured professors in my various networks shared that it was a clearer path to publishing. I learned that selecting a method before massaging the research question may be putting the cart before the horse. During the residency, I had an opportunity to work with a statistical package for social sciences (SPSS). Exposure to the basic features of the software allowed me to see the

wealth of data that could be analyzed. I had been formulating my research topic based on what I viewed to be the most pressing issue from the work-based problems I studied during the Modules. My residency conference paper allowed me to test the waters with my topic and methodology. The results from my conference paper allowed me to identify the limitations of the research and provided insight on how to address some of the limitations I experienced. The limitations of my conference paper are reprinted below:

The current study is limited by the size of the sample. Inexperience (I had not worked with Exact and Firth regression tools) with the Exact and Firth regression tools prevented further analysis of the model. Students at the University are not routinely engaged in faculty research and may be apathetic to completing surveys. Other incentives may prove beneficial (extra credit) to complete surveys. The study examines the intention to select accounting or non-accounting major but does not examine the concentration officially declared. Juniors were enrolled in the introductory accounting course thus indicating problems with the advisement process. The perception intervention process may prove more beneficial for 1st-year students rather than a 2nd year.

During thesis proposal development time in the thesis module, I utilized the four questions related to population and generalized knowledge, objectivity, goals of inquiry and data collection timing to determine that my research question could be studied using a quantitative method that would assist with testing actionable knowledge. Given the quantitative research indicators, I wanted to try to remove or minimize some of the limitations I experienced during my conference paper.

The sample population for the conference paper was the 1st introductory accounting course. This course is a compulsory course for all business students. The course is a prerequisite for core business economic courses and is therefore recommended for the sophomore year. It was determined however, that many management and marketing majors wait to take the course later in their matriculation. This thesis sought to respond to sample size and classification concerns by selecting a freshman level course that was a compulsory course for all university students taught in the business school. It has become a general practice in the United States of America to reward students for participating in surveys. Professors at CAU who utilize student surveys are aware of the need to encourage them to complete the surveys. Professors teaching the course used in the thesis study were asked to award extra credit for

participating. The particulars of how the extra credit would be made available and awarded to the students were delineated in the ethics approval process.

Another hurdle was increasing my skills in utilizing SPSS and running the appropriate model properly. I used sample data files to practice analyzing and interpreting data in SPSS. My primary supervisor suggested that I explore how partial lease squared structural equation modeling (PLS-SEM) may be better suited for my research. PLS-SEM would assist with small sample size and would also provide a means for structuring the most appropriate model for my research. I selected SmartPLS3, the primary software available for PLS-SEM, software to conduct my thesis research.

6.3.2.a Student Surveys

The student surveys were prepared in Qualtrics. I had utilized the software before with other department and student projects. My experience with students suggested that a survey that could be managed on their cell phones or tablets would provide the greatest chance of completing the survey. Qualtrics provided a mobile display of the survey. Although the students were given an estimated time to complete the survey on the Participation Information form, about halfway through completing the survey, students openly complained about the length of the survey. I was able to see the percentage of completed surveys and surveys that were in progress. Many of the incomplete surveys had 10%-15% questions to be completed. I did not include a progress bar in the survey because an informal discussion with a group of students revealed that if they saw they had too much left to complete the survey that the progress bar would become a deterrent. However, the students who were close to completing the survey may have continued had they known that they were almost finished. An announcement was posted on the Canvas course before the survey closed notifying students that if they used the same device, they could pick up where they left off in the survey.

While I am still not clear about the better approach (allowing respondents to know the progress of the survey or not), I learned that students do not like surveys that are more than five to seven minutes.

6.3.2.b Statistical Software

I understand the importance of handling data with care; therefore, it was beneficial to have the ability to import the data from Qualtrics into SPSS. I learned that it was necessary to manipulate some of the data before importing to SmartPLS3. In SPSS, I recoded the

academic major selection by accounting and all other. There were also Likert coding that needed to be recoded into the same variable. Finally, total scores for LOC, OTE, and SAM were calculated in SPSS.

SmartPLS3 was more difficult for me to navigate. I had to troubleshoot memory issues that were inherent to the software. I did not clearly understand that reports needed to be exported to "save" them. I spent time rerunning algorithms to investigate how to save results which is intuitive to the majority of software that I have worked with previously. My critical action learning set members nor my other networks were familiar enough with SmartPLS3 to assist.

Once I worked through some of the basic nuances of the software, I began to enjoy sorting through data and preparing to analyze it. Step by step, I began to see the unfolding of a model suited for my research. It was also a bit overwhelming with the wealth of data to determine the best way to disseminate the findings in the thesis. I learned to import and export data, code and calculate variables, design models, run reports, and analyze reports. I appreciate the skills I have learned with both SPSS and SmartPLS3.

6.3.3 Action Research

While I was settled that my research could be conducted utilizing a quantitative methodology, it was important to me to maintain the integrity of quantitative studies within the framework of action research.

6.3.3.a Action Cycles

The learning set discussion, and the literature review revealed that the Theory of Planned Behavior was a formidable framework to address how students select accounting as a major and it would provide guidance for altering the perceptions related to a major in accounting. Additionally, the theory had been assessed using PLS-SEM. The theory fits well with the cycles of action research. The emphasis on analyzing data to facilitate action that would prompt a change in behavior led to a critical inquiry regarding the exigencies of personality that might influence TPB. The student scores regarding locus of control, openness to experience, and situational achievement motivation were interpreted to develop appropriate action activities.

While the work-based problem was being structured within the learning set, I began to inquire beyond influencing the perception of accounting for current students at CAU to select accounting as an academic major. The experience of the learning set, as well as the literature, supported the need to influence and engage students regarding their major before they attend

a university. Furthermore, a general increase in accounting majors acknowledged by the profession would suggest that another angle to CAU's problem was how to attract the students who want to major in accounting to CAU. As the learning set continued to mull over the appropriate action cycle to pursue, it became more evident that to address the decrease in accounting majors at CAU while other university experienced an increase it would behoove me to explore three concurrent action paths. The full discussion of the action research is found in Chapter 3.

6.4 Reflections

I am thankful for my sojourn in the DBA program at the University of Liverpool. As I ponder on my adventure, I am compelled to examine my impetus for pursuing a DBA. I believed that the pursuit of my DBA was to advance my academic career, contribute to the accounting profession, and to enhance the lives of my students. However, upon acceptance into the program, I completed the skill units as was recommended to prepare for the program. What resonated with me from the time management unit was that establishing goals would keep me focused and motivated through the program. I identified my goals and how completing my DBA would allow me to accomplish my goals. On Wednesday, May 27, 2015 , I listed the following goals (1) I want to be a top scholar-practitioner in the accounting field (2) I want to enjoy my learning journey (3) I want to encourage young adults to be the best they can be (4) I want to secure a tenure track position at a university with a functional campus/community (5) I want to earn more money so that my spouse can transition to full-time ministry (6) I want to be available for ministry. Completing my DBA at the University of Liverpool timely with high academic achievement will allow me to achieve my goals. Additionally, I believed this to be God's plan for my life. I planned to manage my time and not sacrifice my time with God and my family.

Although this program has been a tremendous amount of work, I have thoroughly enjoyed it. My appreciation and delight for learning have been heightened. I learned to be more efficient with my readings as time passed, and I learned to appreciate the encounters of my learning set members. It took time to adjust to receiving feedback from my tutors. I had been self-employed for most of my career and did not have much background with such raw commentary. I tried to adhere to the comments in my next writing. There were occasions when I did not understand the feedback, or they were inconsistent between tutors.

I believe I have much to offer to my discipline as a scholar-practitioner. I understand there are gatekeepers to publishing in the USA, and I plan to work hard to penetrate the field with relevant and rigorous research. During my program, I have presented at a couple of accounting conferences.

While I had intended to use this program as a means to add value to my students, my students have fueled my work. My critical action learning projects during the modules of the program and my thesis have all had some footing in the accounting students and the accounting department at CAU. I look forward to collaborating with my students to conduct research and to develop research questions.

Working at CAU is important to me because it gives me the privilege to work with African American students – to help them feel confident in their accounting skills and their right for a space in the USA. I am also respectful of the history that the university has had in the success of so many African American professionals. I am less moved by the mediocracy and complacency that I think has developed in the school of business. I was promoted to assistant professor, tenure-track when I completed my coursework.

My perspective of the world was broadened because of my DBA pursuit, which also impacted my research. In the USA, being an African American, a person of color is a factor in every area of life. When I traveled to Liverpool for the residency, I was referred to as an American or from the states. For the first time in my life, my identity was tied to my country and not the color of my skin. This worldview was a lesson for me and overflowed into an opportunity to develop our accountant students into global accountants and attract accounting majors to CAU.

6.5 My Conclusion

The awarding of a doctorate surely speaks to the demonstration to conduct scholarly research, but it also speaks to traits that a person may not know existed within them. Even at this stage in my career and life, this DBA experience has provided an indelible impression on me. My persistence, perseverance, diligence, ambition, compassion, and patience have all been heightened. I understand why many people do not finish this journey for many reasons. I am grateful to my family for helping me complete this journey.

6.6 Study Conclusion

This thesis sought to provide actionable knowledge to CAU regarding the decline in accounting majors compared to other universities. The action plans undertaken in this study provides CAU with sustainable activities that should yield an increase in accounting majors. The findings of this study are important for attracting African-American students to CAU and the accounting profession.

The study also contributed meaningful knowledge regarding recruiting African-American accounting students, implementing behavior intervention, higher education business practice, and student social intersectionality.

I am grateful for the benefits this study contributes to CAU, the accounting profession, my students, and my professional development.

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APPENDICES

Appendices

Appendices

Appendix 1: UOL Ethics Approval

Dear Marlissa
I am pleased to inform you that the DBA Ethics Committee has approved your application for ethical approval for your study. Details and conditions of the approval can be found below:

Committee Name: DBA Ethics Committee

Title of Study: A Critical analysis of the impact of perception intervention on the selection of accounting as a major at CAU

Student Investigator: Marlissa Phillips

School/Institute: School of Management Approval Date: 03 September

2018. The application was given an APPROVAL subject to the following

conditions:

The researchers must obtain ethical approval from a local research ethics committee if this is an international study.

University of Liverpool approval is subject to compliance with all relevant national legislative requirements if this this is an international study.

All serious adverse events must be reported to the Sub-Committee within 24 hours of their occurrence, via the Research Integrity and Governance Officer (ethics@liv.ac.uk).

If it is proposed to make an amendment to the research, you should notify the Committee of the amendment.

This approval applies to the duration of the research. If it is proposed to extend the duration of the study as specified in the application form, the Committee should be notified.

Kind regards,

Hammad Akbar
DBA Ethics Committee University of Liverpool Management School in Partnership

Appendix 2: CAU Ethics Approval

CLARK ATLANTA UNIVERSITY

Institutional Review Board
Office of Sponsored Programs

April 6, 2018

Ms. Marlissa J. Phillips <mphillips@cau.edu>
School of Business Administration
Department of Accounting,
Wright Young Hall 224
Clark Atlanta University
Atlanta, GA 30314

RE: A Critical Analysis of the Impact of Perception Intervention on the Selection ofan Accounting Major at CAU.

Principal Investigator(s): Marlissa J. Phillips

Human Subjects Code Number: HR20185785-1

Dear Ms. Phillips:

The Human Subjects Committee of the Institutional Review Board (IRB) has reviewed your protocol and approved of it as exempt in accordance with 45 CFR 46.101(b)(2).

Your Protocol Approval Code is HR20185785- 1/A
Type of Review: Expedited

This permit will expire on April 5, 2019. Thereafter, continued approval is contingent upon the annual submission of a renewal form to this office.
The CAU IRB acknowledges your timely completion of the CITI IRB Training in Protection of Human Subjects – "Social and Behavioral Sciences Track".
Your CITI certification expires on March 11, 2020.

If you have any questions, please contact the IRB Office or Dr. Paul I. Musey, (404) 880-6337

Sincerely:

Paul I. Musey, Ph.D.
Chair, IRB
Human Subjects Committee

223 James P. Brawley Drive, S.W. * ATLANTA, GA 30314-4391 * (404) 880-8000

Formed in 1988 by consolidation of Atlanta University, 1865 and Clark College, 1869

Appendix 3: Participant Information Form

UNIVERSITY OF LIVERPOOL

Committee on Research Ethics

Participant Information

Choosing Your Major

As a 1st-year student enrolled in the Financial Planning Course, a required course at CAU, you are invited to participate in a research study about how you will decide on your major.

CAU has experienced a decline in accounting majors compared to other Universities; therefore, the purpose of this survey is to collect information on the factors you consider important in choosing your academic major. The survey will take 12 -15 minutes to complete.

The financial planning course was selected because it is a compulsory general education course housed in the school of business. The students in this course are typically freshmen (1st year) students. CAU requires students to declare a major by the end of the sophomore (2nd year). As a student in this course, you can provide valuable information for how you approach selecting a major.

If you agree to be in this study, you will be asked to complete this survey, view information and or participate in activities in your class Canvas course and complete a post-survey in 2-3 weeks. You will be given time in class to complete the survey on your electronic device; however, you will have an option to save and continue the survey later. The survey will be open for five days.

After this Information screen, you will see the Informed Consent Screen. If you agree to participate, you will click your consent and move to the next screen of the survey. The survey is completely voluntary, and should you wish not to participate; you may simply close the browser. The link will be active for five days if you decide later to participate.

To keep the survey anonymous, you will create a unique ID - Last two digits of your phone number - two-digit birth month - Middle initial. This way the pre-test and post-test responses can be matched without using names or identifying information.

Your Professor will award extra points for completing the pre-survey, viewing/reading information, and completing the post-survey.

Your decision whether or not to participate in the study is voluntary and will not affect your current or future relationships at CAU. Responses are completely confidential. Neither the professor of this course nor any university-related person or office will have access to individual answers.

There are no noted risks to you for participating; however, you may benefit from exposure to career opportunities. The study allows you to reflect on how you think about your academic major. You may discover additional factors that contribute to your decision process. The results of the study will guide the University with strategies to assist students with the selection of majors.

Please be sure to answer all questions; do not omit any.

You may contact Professor M. Phillips at (404)880-8446 or mphillips@cau.edu with any questions, concerns or complaints regarding this study. You may also contact the IRB office at (404)880-6337.

Thank you.

Version 1
June 2018

Appendix 4: Participant Consent Form

Participant Consent Form
Researcher - Marlissa Phillips
Choosing a Major

	Yes	No
I confirm that I have read and have understood the information sheet dated June 2018 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	○	○
I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my rights being affected.	○	○
I understand that, under the Data Protection Act, I can at any time ask for access to the information I provide and I can also request the destruction of that information if I wish.	○	○
I agree to take part in the above study.	○	○

Appendix 5: Survey Instrument

Please create your Participant ID: Last two digits of your phone number - two digit birth month - Middle initial. Example: Phone number: 404-213-9876, Birth month: June, Name: Mary H. Williams Participant ID = 76-06-H

_____

Enter your age

_____

Select your gender

○ Male

○ Female

Select your race

▼ Black/ African-American ... Other

Select your academic major/concentration

- ○ Accounting
- ○ Entrepreneurship Management
- ○ Finance/Financial planning
- ○ International Business
- ○ Management
- ○ Marketing
- ○ Sports & Entertainment
- ○ Supply Chain Management
- ○ Education
- ○ Science
- ○ Other Humanities

Undecided: If you were asked to choose an academic major today, what would it be?

What is your classification?

- ○ Freshman
- ○ Sophomore
- ○ Junior
- ○ Senior

Did your Highschool offer a bookkeeping/accounting course?

- ○ Yes
- ○ No
- ○ Don't Know

Display This Question:

If Did your Highschool offer a bookkeeping/accounting course? = Yes

Did you take bookkeeping/accounting in Highschool?

- ○ Yes
- ○ No

Which title best describes your Parents' occupation

- ○ Homemaker
- ○ Accounting professional
- ○ Other business professional
- ○ Non-business professional
- ○ Education professional
- ○ Nonprofessional

I use the following sources of information to assist with the selection of my academic major

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
University/Departmental website	○	○	○	○	○
Information on the Internet/Web	○	○	○	○	○
Informational videos	○	○	○	○	○
Television or Movie portrayal of the occupation	○	○	○	○	○
Presentation by Faculty	○	○	○	○	○
Presentation by Couselor	○	○	○	○	○
Presentation by Current students	○	○	○	○	○
Presentation by Alumni	○	○	○	○	○
Presentation by Professional of the career	○	○	○	○	○

Which of the following statements do you think describe the job responsibilities of an accountant? check all that apply

- [ ] Assess tax and financial planning opportunities, prepare tax returns and research tax issues

- [ ] Measure and allocate production and overhead costs

- [ ] Attest to the fairness and reasonableness of financial statements after the analysis and inspection of supporting documentation.

- [ ] Analyze costs, budgetary, forecasting, tax, and systems and procedures accounting functions. Supervisory duties and special reporting may be required.

- [ ] Audit tax returns for compliance with tax laws that were in effect at the time the return was prepared.

Investigate a party's finances to determine whether the reported income or assets is truthful and accurate

Which of the following movies/shows have you seen? check all that apply

- ☐ The Untouchables
- ☐ Shawshank Redemption
- ☐ The Other Guys
- ☐ Central Intelligence
- ☐ The Accountant
- ☐ The Office
- ☐ The Royal Tenebaums
- ☐ Dead Man
- ☐ Hitch
- ☐ Breaking Bad

Enter what you think is the average starting **annual** salary of an accountant _____

Using the following scale, please indicate how **important** each of the **outcomes** listed below is to your choice of an **academic major**.

	Extremely important	Very important	Moderately important	Slightly important	Not at all important
Earning a high initial salary is	○	○	○	○	○
Choosing a career with high earnings and advancement potential is	○	○	○	○	○
Entering a field that offers chance to establish a private practice is	○	○	○	○	○
Choosing a career that provides high social status is	○	○	○	○	○
Choosing an academic major that is not boring is	○	○	○	○	○
Choosing a major with difficult courses is	○	○	○	○	○
Choosing a major that prepares me for a field with a number of job opportunities is	○	○	○	○	○

Choosing a major that requires a graduate degree is	○	○	○	○	○
Career that deals with a lot of numbers is	○	○	○	○	○
Field with broad exposure to business is	○	○	○	○	○
Career that is challenging is	○	○	○	○	○

Using the following scale, please indicate how likely **an academic major in ACCOUNTING** will result in this outcome.

	Extremely likely	Somewhat likely	Neither likely nor unlikely	Somewhat unlikely	Extremely unlikely
Earning a high initial salary is	○	○	○	○	○
Choosing a career with high earnings and advancement potential is	○	○	○	○	○
Entering a field that offers chance to establish a private practice is	○	○	○	○	○
Choosing a career that provides high social status is	○	○	○	○	○

Choosing an academic major that is not boring is	○	○	○	○	○
Choosing a major with difficult courses is	○	○	○	○	○
Choosing a major that prepares me for a field with a number of job opportunities is	○	○	○	○	○
Choosing a major that requires a graduate degree is	○	○	○	○	○
Career that deals with a lot of numbers is	○	○	○	○	○
Field with broad exposure to business is	○	○	○	○	○
Career that is challenging is	○	○	○	○	○

The following people think that I should major in ACCOUNTING

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
Parents	○	○	○	○	○
Classmates	○	○	○	○	○
Professors	○	○	○	○	○
Friends of family	○	○	○	○	○
Most Business people I know	○	○	○	○	○
High School Advisor	○	○	○	○	○

How important is it to you whether the following people approve or disapprove of the academic major

	Extremely important	Very important	Moderately important	Slightly important	Not at all important
Parents	○	○	○	○	○
Classmates	○	○	○	○	○
Professors	○	○	○	○	○
Friends of family	○	○	○	○	○
Most Business people I know	○	○	○	○	○
High School Advisor	○	○	○	○	○

The following made it or would make it difficult for me to choose an academic major in ACCOUNTING

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
Required workload	○	○	○	○	○
Skills and background in mathematics	○	○	○	○	○
Performance in introductory accounting course	○	○	○	○	○
Job opportunities	○	○	○	○	○
Interest in accounting	○	○	○	○	○
Involvement in extracurricular activities	○	○	○	○	○
Requirements for certification	○	○	○	○	○

Please read each item carefully and be sure that you indicate the response which most closely corresponds to the way you feel.

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
I believe that my success depends on ability rather than luck	○	○	○	○	○
I believe that events in my life are determined only by me.	○	○	○	○	○
I just know that I will be a success.	○	○	○	○	○
I believe that by working hard a person can achieve anything.	○	○	○	○	○
I feel comfortable with myself.	○	○	○	○	○
I always know why I do things.	○	○	○	○	○
I see difficulties everywhere.	○	○	○	○	○

I believe that unfortunate events occur because of bad luck.	○	○	○	○	○
I can't stand on my own.	○	○	○	○	○
I feel that my life lacks direction	○	○	○	○	○

Please read each item carefully and be sure that you indicate the response which most closely corresponds to the way which you personally feel.

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
I believe that the world is controlled by a few powerful people.	○	○	○	○	○
I remember my failures more easily than my successes.	○	○	○	○	○
I feel short-changed in life.	○	○	○	○	○
I see difficulties everywhere.	○	○	○	○	○
I dislike myself.	○	○	○	○	○
I feel that my life lacks direction.	○	○	○	○	○
I feel comfortable with myself.	○	○	○	○	○
I just know that I will be a success.	○	○	○	○	○
I feel comfortable around people.	○	○	○	○	○
I know how to enjoy myself.	○	○	○	○	○

Please read each item carefully and be sure that you indicate the response which most closely corresponds to the way which you personally feel.

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
I believe that unfortunate events occur because of bad luck.	○	○	○	○	○
I believe some people are born lucky	○	○	○	○	○
I believe in the power of fate.	○	○	○	○	○
I feel that my life lacks direction.	○	○	○	○	○
I am resigned to my fate.	○	○	○	○	○
I am not sure where my life is going.	○	○	○	○	○
I believe that my success depends on ability rather than luck.	○	○	○	○	○
I feel comfortable with myself.	○	○	○	○	○
I just know that I will be a success	○	○	○	○	○
I come up with good solutions.	○	○	○	○	○

Please read each item carefully and be sure that you indicate the response which most closely corresponds to the way which you personally feel.

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
I believe in the importance of art.	○	○	○	○	○
I have a vivid imagination.	○	○	○	○	○
I tend to vote for liberal political candidates.	○	○	○	○	○
I carry the conversation to a higher level.	○	○	○	○	○
I enjoy hearing new ideas.	○	○	○	○	○
I am not interested in abstract ideas.	○	○	○	○	○
I do not like art.	○	○	○	○	○
I avoid philosophical discussions.	○	○	○	○	○
I do not enjoy going to art museums.	○	○	○	○	○
I tend to vote for conservative political candidates.	○	○	○	○	○

Please read each item carefully and be sure that you indicate the response which most closely corresponds to the way which you personally feel.

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
I listen to the suggestion of my classmates	○	○	○	○	○
I follow the recommendation of my classmates	○	○	○	○	○
I believe my classmates are usually right	○	○	○	○	○
I believe my classmate know a lot	○	○	○	○	○
I think highly of my classmates	○	○	○	○	○
I listen to the suggestion of my professors	○	○	○	○	○
I follow the recommendation of my professors	○	○	○	○	○
I believe my professors are usually right	○	○	○	○	○
I believe my professors know a lot	○	○	○	○	○
I think highly of my professors	○	○	○	○	○

I am inspired by what the accounting professionals say about the profession	○	○	○	○	○
I regularly see information by accounting professionals about the benefits of being an accountant	○	○	○	○	○
The information presented by the accounting profession has made me see the profession in a positive light	○	○	○	○	○
The requirements to become a CPA are clearly articulated by accounting professionals	○	○	○	○	○
Accounting professionals are portrayed favorably in the resources I use	○	○	○	○	○

I would consider a major in accounting

- ○ Strongly agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Strongly disagree

I would like to major in accounting

- ○ Strongly agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Strongly disagree

I would like to pursue a career in accounting

- ○ Strongly agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Strongly disagree

Just to make sure.....

	Yes	No
My Participation in this survey is voluntary.	○	○

Appendix 5a: Survey Instrument Posttest additions

I viewed the Choosing Your Major Activities on Canvas (1-5). If NO, please leave the survey, view the activities and return to complete the survey.

- ○ Yes
- ○ No

As a result of the Choosing Your Major Activities

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
I have a better understanding of the different careers in Accounting	○	○	○	○	○
I view Accounting Professionals more positively	○	○	○	○	○
I have a better understanding of the work of accounting professionals	○	○	○	○	○
I understand that there are African-Americans who are successful in accounting	○	○	○	○	○
I have a better understanding of the salary range for accounting professionals	○	○	○	○	○
I believe I have the skills to be successful in accounting	○	○	○	○	○
I would like more information about majoring in accounting	○	○	○	○	○

Using the following scale please select your agreement with the statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
I would consider a major in accounting	○	○	○	○	○
I would like to major in accounting	○	○	○	○	○
I would like to pursue a career in accounting	○	○	○	○	○

Appendix 6: Survey Items – Source and reliability

Survey Items		
Code	**Dimensions and Items of Evaluation**	**Sources - Alpha reliability**
	Attitude toward an Accounting Major	**Cohen and Hanno (1993) .75 Allen (2004) .85 Tan and Laswad (2006) .60**
ATTA1	An accounting major is likely to provide earning a high initial salary	Cohen and Hanno (1993), Allen (2004), Tan and Laswad (2006)
ATTA2	An accounting major is choosing a career with high earnings and advancement potential	Cohen and Hanno (1993), Allen (2004), Tan and Laswad (2006)
ATTA3	An accounting major is entering a field that offers a chance to establish a private practice	Cohen and Hanno (1993), Tan and Laswad (2006)
ATTA4	An accounting major is choosing a career that provides high social status	Cohen and Hanno (1993), Allen (2004), Tan and Laswad (2006)
ATTA5	An accounting major is choosing an academic major that is not boring	Cohen and Hanno (1993), Allen (2004), Tan and Laswad (2006)
ATTA6	An accounting major is choosing a major with difficult courses	Cohen and Hanno (1993), Allen (2004)
ATTA7	An accounting major is choosing a major that prepares me for a field with a number of job opportunities	Tan and Laswad (2006)
ATTA8	An accounting major is choosing a major that requires a graduate degree	Allen (2004)
ATTA9	An accounting major is choosing a career that deals with a lot of numbers	Tan and Laswad (2006)
ATTA10	An accounting major provides a field with broad exposure to business	Cohen and Hanno (1993)
ATTA11	An accounting major provides a career that is challenging	Tan and Laswad (2006)
	Referent Attitude toward an Accounting Major	**Cohen and Hanno (1993) .78, Allen (2004) .75, Tan and Laswad (2006) .86**
SN1	My parents believe I should major in accounting	Cohen and Hanno (1993), Allen (2004), Tan and Laswad (2006)
SN2	My classmates believe I should major in accounting	Cohen and Hanno (1993), Allen (2004)
SN3	My professor believes I should major in accounting	Cohen and Hanno (1993), Allen (2004)
SN4	My friends of family believe I should major in accounting	Cohen and Hanno (1993)
SN5	Most business people I know believe I should major in accounting	Cohen and Hanno (1993), Allen (2004)
SN6	My High School Advisor believes I should major in accounting	Tan and Laswad (2006)

	Perceived Behavioral Control	**Cohen and Hanno (1993) .74, Allen (2004) .89, Tan and Laswad (2006) .69**
PBC1	The required workload made or will make it difficult to choose accounting as a major	Cohen and Hanno (1993), Allen (2004), Tan and Laswad (2006)
PBC2	The skills and background in mathematics made or will make it difficult to choose accounting as a major	Cohen and Hanno (1993), Allen (2004), Tan and Laswad (2006)
PBC3	My performance in the introductory accounting course made or will make it difficult to choose accounting as a major	Cohen and Hanno (1993), Allen (2004)
PBC4	Available job opportunities made or will make it difficult to choose accounting as a major	Tan and Laswad (2006)
PBC5	My interest in accounting made or will make it difficult to choose accounting as a major	Tan and Laswad (2006)
PBC6	My involvement in extracurricular activities made or will make it difficult to choose accounting as a major	Tan and Laswad (2006)
PBC7	Requirements for certification made or will make it difficult to choose accounting as a major	Allen (2004)
	Locus of Control: Internal	**IPIP Levenson (1981) .71**
LOCI1	I believe that my success depends on ability rather than luck	
LOCI2	I believe that events in my life are determined only by me.	
LOCI3	I just know that I will be a success	
LOCI4	I believe that by working hard, a person can achieve anything	
LOCI5	I feel comfortable with myself	
LOCI6	I always know why I do things	
LOCI7	I see difficulties everywhere	
LOCI8	I believe that unfortunate events occur because of bad luck	
LOCI9	I can't stand on my own	
LOCI10	I feel that my life lacks direction	
	Locus of Control: Powerful Others	**IPIP Levenson (1981) .81**
LOCP1	I believe that the world is controlled by a few powerful people	
LOCP2	I remember my failures more easily than my successes	
LOCP3	I feel short-changed in life	
LOCP4	I see difficulties everywhere	
LOCP5	I dislike myself	
LOCP6	I feel that my life lacks direction	
LOCP7	I feel comfortable with myself	

LOCP8	I just know that I will be a success	
LOCP9	I feel comfortable around people	
LOCP10	I know how to enjoy myself	
	Locus of Control: Chance	**IPIP Levenson (1981) .72**
LOCC1	I believe that unfortunate events occur because of bad luck	
LOCC2	I believe some people are born lucky	
LOCC3	I believe in the power of fate	
LOCC4	I feel that my life lacks direction	
LOCC5	I am resigned to my fate	
LOCC6	I am not sure where my life is going	
LOCC7	I believe that my success depends on ability rather than luck	
LOCC8	I feel comfortable with myself	
LOCC9	I just know that I will be a success	
LOCC10	I come up with good solutions	
	Openness to Experience	**IPIP (2018) .82**
OTE1	I believe in the importance of art	
OTE2	I have a vivid imagination	
OTE3	I tend to vote for liberal political candidates	
OTE4	I carry the conversation to a higher level	
OTE5	I enjoy hearing new ideas	
OTE6	I am not interested in abstract ideas	
OTE7	I do not like art	
OTE8	I avoid philosophical discussions	
OTE9	I do not enjoy going to art museums	
OTE10	I tend to vote for conservative political candidates	
	Situational Achievement Motivation: Peers	**Self - developed**
SAM1	I listen to the suggestion of my classmates	
SAM2	I follow the recommendation of my classmates	
SAM3	I believe my classmates are usually right	
SAM4	I believe my classmate know a lot	
SAM5	I think highly of my classmates	
	Situational Achievement Motivation: Professors	**Self- developed**
SAM6	I listen to the suggestion of my professors	
SAM7	I follow the recommendation of my professors	
SAM8	I believe my professors are usually right	
SAM9	I believe my professors know a lot	
SAM10	I think highly of my professors	
	Situational Achievement Motivation: Accounting Profession	**Self-developed**

SAM11	I am inspired by what the accounting professionals say about the profession	
SAM12	I regularly see information by accounting professionals about the benefits of being an accountant	
SAM13	The information presented by the accounting profession has made me see the profession in a positive light	
SAM14	The requirements to become a CPA are clearly articulated by accounting professionals	
SAM15	Accounting professionals are portrayed favorably in the resources I use	
	Major Intention	**Adapted Mbawuni and Nimako (2015) .85**
INT1	I would consider a major in accounting	
INT2	I would like to major in accounting	
INT3	I would like to pursue a career in accounting	

Appendix 7: Reflective Indicators

Code	Reflective Indicators Dimensions and Items of Evaluation	Sources - Alpha reliability
	Locus of Control: Internal	**IPIP Levenson (1981) .71**
LOCI1	I believe that my success depends on ability rather than luck	
LOCI2	I believe that events in my life are determined only by me.	
LOCI3	I just know that I will be a success	
LOCI4	I believe that by working hard, a person can achieve anything	
LOCI5	I feel comfortable with myself	
LOCI6	I always know why I do things	
LOCI7	I see difficulties everywhere	
LOCI8	I believe that unfortunate events occur because of bad luck	
LOCI9	I can't stand on my own	
LOCI10	I feel that my life lacks direction	
	Locus of Control: Powerful Others	**IPIP Levenson (1981) .81**
LOCP1	I believe that the world is controlled by a few powerful people	
LOCP2	I remember my failures more easily than my successes	
LOCP3	I feel short-changed in life	
LOCP4	I see difficulties everywhere	
LOCP5	I dislike myself	
LOCP6	I feel that my life lacks direction	
LOCP7	I feel comfortable with myself	
LOCP8	I just know that I will be a success	
LOCP9	I feel comfortable around people	
LOCP10	I know how to enjoy myself	
	Locus of Control: Chance	**IPIP Levenson (1981) .72**
LOCC1	I believe that unfortunate events occur because of bad luck	
LOCC2	I believe some people are born lucky	
LOCC3	I believe in the power of fate	
LOCC4	I feel that my life lacks direction	
LOCC5	I am resigned to my fate	
LOCC6	I am not sure where my life is going	
LOCC7	I believe that my success depends on ability rather than luck	
LOCC8	I feel comfortable with myself	
LOCC9	I just know that I will be a success	
LOCC10	I come up with good solutions	
	Openness to Experience	**IPIP (2018) .82**
OTE1	I believe in the importance of art	
OTE2	I have a vivid imagination	

OTE3	I tend to vote for liberal political candidates	
OTE4	I carry the conversation to a higher level	
OTE5	I enjoy hearing new ideas	
OTE6	I am not interested in abstract ideas	
OTE7	I do not like art	
OTE8	I avoid philosophical discussions	
OTE9	I do not enjoy going to art museums	
OTE10	I tend to vote for conservative political candidates	
	Situational Achievement Motivation: Peers	**Self - developed**
SAM1	I listen to the suggestion of my classmates	
SAM2	I follow the recommendation of my classmates	
SAM3	I believe my classmates are usually right	
SAM4	I believe my classmate know a lot	
SAM5	I think highly of my classmates	
	Situational Achievement Motivation: Professors	**Self- developed**
SAM6	I listen to the suggestion of my professors	
SAM7	I follow the recommendation of my professors	
SAM8	I believe my professors are usually right	
SAM9	I believe my professors know a lot	
SAM10	I think highly of my professors	
	Situational Achievement Motivation: Accounting Profession	**Self-developed**
SAM11	I am inspired by what the accounting professionals say about the profession	
SAM12	I regularly see information by accounting professionals about the benefits of being an accountant	
SAM13	The information presented by the accounting profession has made me see the profession in a positive light	
SAM14	The requirements to become a CPA are clearly articulated by accounting professionals	
SAM15	Accounting professionals are portrayed favorably in the resources I use	
	Major Intention	**Adapted Mbawuni and Nimako (2015) .85**
INT1	I would consider a major in accounting	
INT2	I would like to major in accounting	
INT3	I would like to pursue a career in accounting	

Appendix 8: Outer Loading Relevance Testing

The outer loading relevance testing with outer loadings less than 0.40 for reflective indicators denoted by single strikethroughs. Further analysis highlighted additional indicators to be removed. The indicators are marked by a double strikethrough

Outer Loading Relevance Testing – Outer loading is < 0.40					
LOCt_0	**LOCt_1**	**OTEt_0**	**OTEt_1**	**SAMt_0**	**SAMt_1**
~~LOCC1~~	LOCC1	OTE1	OTE1	SAM1	SAM1
LOCC2	~~LOCC2~~	~~OTE2~~	OTE2	SAM2	SAM2
~~LOCC3~~	LOCC3	OTE3	OTE3	SAM3	SAM3
~~LOCC4~~	~~LOCC4~~	OTE4	OTE4	SAM4	SAM4
~~LOCC5~~	~~LOCC5~~	~~OTE6~~	~~OTE6~~	SAM5	SAM5
LOCC6	~~LOCC6~~	~~OTE7~~	~~OTE7~~	SAM6	SAM6
LOCC7	LOCC7	~~OTE8~~	~~OTE8~~	SAM7	SAM7
~~LOCC8~~	LOCC8	~~OTE9~~	~~OTE9~~	SAM8	~~SAM8~~
~~LOCC9~~	LOCC9	~~OTE10~~	~~OTE10~~	SAM9	SAM9
~~LOCC10~~	~~LOCC10~~			SAM10	SAM10
LOCI2	LOCI2			~~SAM11~~	~~SAM11~~
LOCI3	LOCI3			~~SAM12~~	~~SAM12~~
LOCI5	LOCI5			~~SAM13~~	~~SAM13~~
LOCI6	LOCI6			~~SAM14~~	~~SAM14~~
LOCI7	LOCI7			~~SAM15~~	~~SAM15~~
LOCI8	LOCI8				
LOCI9	LOCI9				
LOCI10	LOCI10				
LOCP1	~~LOCP1~~				
LOCP2	~~LOCP2~~				
~~LOCP3~~	~~LOCP3~~				
~~LOCP4~~	~~LOCP4~~				
~~LOCP5~~	~~LOCP5~~				
~~LOCP6~~	~~LOCP6~~				
~~LOCP7~~	LOCP7				
~~LOCP9~~	LOCP9				
~~LOCP10~~	LOCP10				

Appendix 9: Change in Content Validity

Change in Content Validity (With and Without Reflective Indicators)						
	Cronbach's Alpha		Composite Reliability		AVE	
	With indicator	Without indicator	With indicator	Without indicator	With indicator	Without indicator
LOCt0	.531	.843	.551	.865	.220	.341
LOCt1	.554	.862	.623	.888	.280	.436
OTEt0	.747	.801	.739	.851	.324	.490
OTEt1	.491	.820	.626	.857	.294	.548
SAMt0	.901	.928	.804	.945	.296	.775
SAMt1	.868	.855	.803	.890	.273	.586

Appendix 10: Outer Loading Relevance Testing 2

Outer Loading Relevance Testing – Outer loading in ≥ 0.40 but < 0.70			
LOCt_0	**LOCt_1**	**OTEt_0**	**OTEt_1**
LOCC1	LOCC2	OTE2	OTE8
LOCC4	LOCC5	OTE6	
LOCC5	LOCP1	OTE7	
LOCC9	LOCP2		
LOCC10	LOCP4		
LOCP10			
LOCP3			
LOCP4			
LOCP9			

Appendix 11: Formative Indicators

Formative Indicators		
Code	**Dimensions and Items of Evaluation**	**Sources - Alpha reliability**
ATTA1	An accounting major is likely to provide earning a high initial salary	Cohen and Hanno (1993), Allen (2004), Tan and Laswad (2006)
ATTA2	An accounting major is choosing a career with high earnings and advancement potential	Cohen and Hanno (1993), Allen (2004), Tan and Laswad (2006)
ATTA3	An accounting major is entering a field that offers a chance to establish a private practice	Cohen and Hanno (1993), Tan and Laswad (2006)
ATTA4	An accounting major is choosing a career that provides high social status	Cohen and Hanno (1993), Allen (2004), Tan and Laswad (2006)
ATTA5	An accounting major is choosing an academic major that is not boring	Cohen and Hanno (1993), Allen (2004), Tan and Laswad (2006)
ATTA6	An accounting major is choosing a major with difficult courses	Cohen and Hanno (1993), Allen (2004)
ATTA7	An accounting major is choosing a major that prepares me for a field with a number of job opportunities	Tan and Laswad (2006)
ATTA8	An accounting major is choosing a major that requires a graduate degree	Allen (2004)
ATTA9	An accounting major is choosing a career that deals with a lot of numbers	Tan and Laswad (2006)
ATTA10	An accounting major provides a field with broad exposure to business	Cohen and Hanno (1993)
ATTA11	An accounting major provides a career that is challenging	Tan and Laswad (2006)
	Referent Attitude toward an Accounting Major	**Cohen and Hanno (1993) .78, Allen (2004) .75, Tan and Laswad (2006) .86**
SN1	My parents believe I should major in accounting	Cohen and Hanno (1993), Allen (2004), Tan and Laswad (2006)
SN2	My classmates believe I should major in accounting	Cohen and Hanno (1993), Allen (2004)
SN3	My professor believes I should major in accounting	Cohen and Hanno (1993), Allen (2004)
SN4	My friends of family believe I should major in accounting	Cohen and Hanno (1993)
SN5	Most business people I know believe I should major in accounting	Cohen and Hanno (1993), Allen (2004)
SN6	My High School Advisor believes I should major in accounting	Tan and Laswad (2006)
	Perceived Behavioral Control	**Cohen and Hanno (1993) .74, Allen (2004) .89, Tan and Laswad (2006) .69**
PBC1	The required workload made or will make it difficult to choose accounting as a major	Cohen and Hanno (1993), Allen (2004), Tan and Laswad (2006)
PBC2	The skills and background in mathematics made or will make it difficult to choose accounting as a major	Cohen and Hanno (1993), Allen (2004), Tan and Laswad (2006)

PBC3	My performance in the introductory accounting course made or will make it difficult to choose accounting as a major	Cohen and Hanno (1993), Allen (2004)
PBC4	Available job opportunities made or will make it difficult to choose accounting as a major	Tan and Laswad (2006)
PBC5	My interest in accounting made or will make it difficult to choose accounting as a major	Tan and Laswad (2006)
PBC6	My involvement in extracurricular activities made or will make it difficult to choose accounting as a major	Tan and Laswad (2006)
PBC7	Requirements for certification made or will make it difficult to choose accounting as a major	Allen (2004)

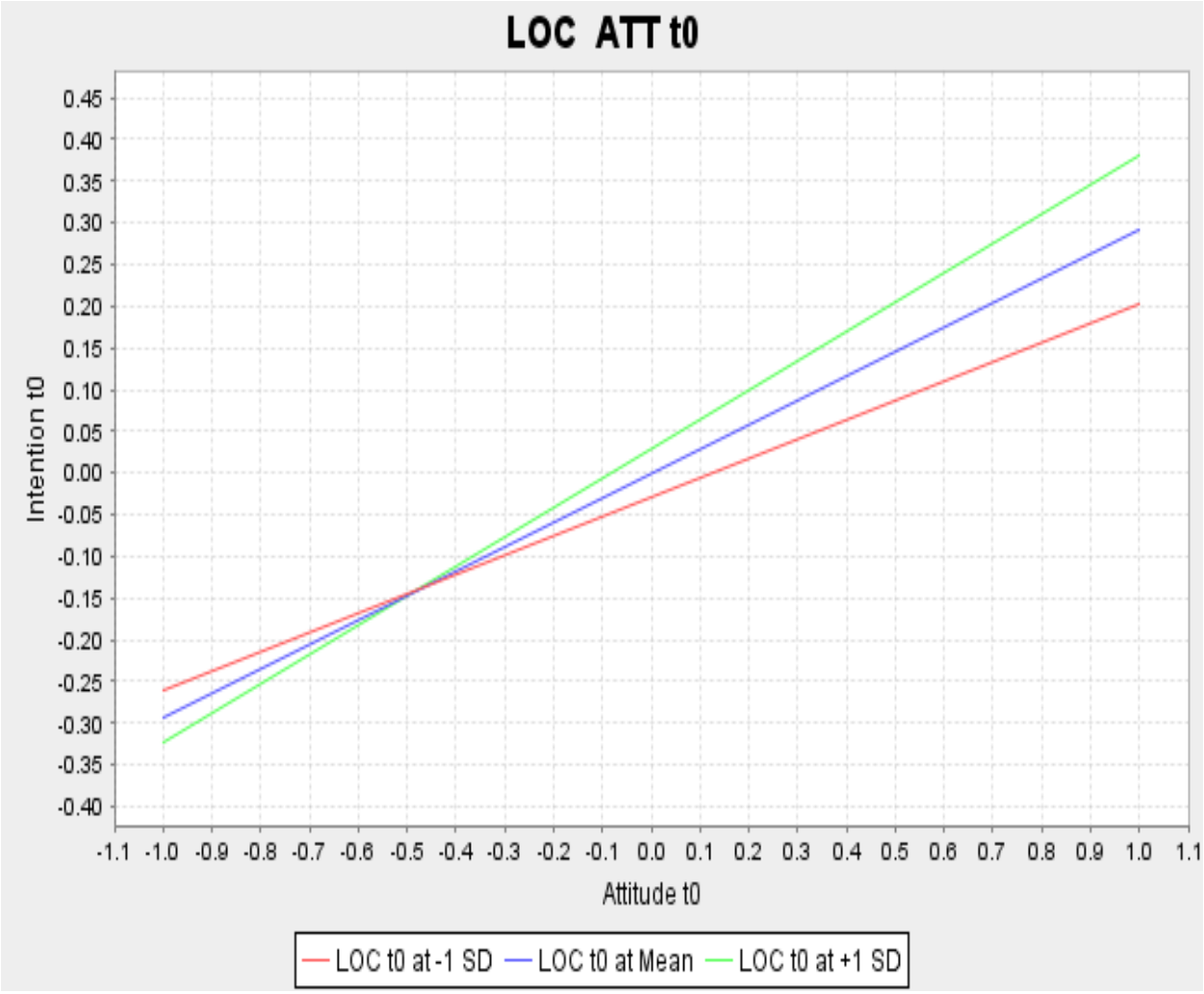
Appendix 12: Formative Indicators VIF Levels at t_0 and t_1

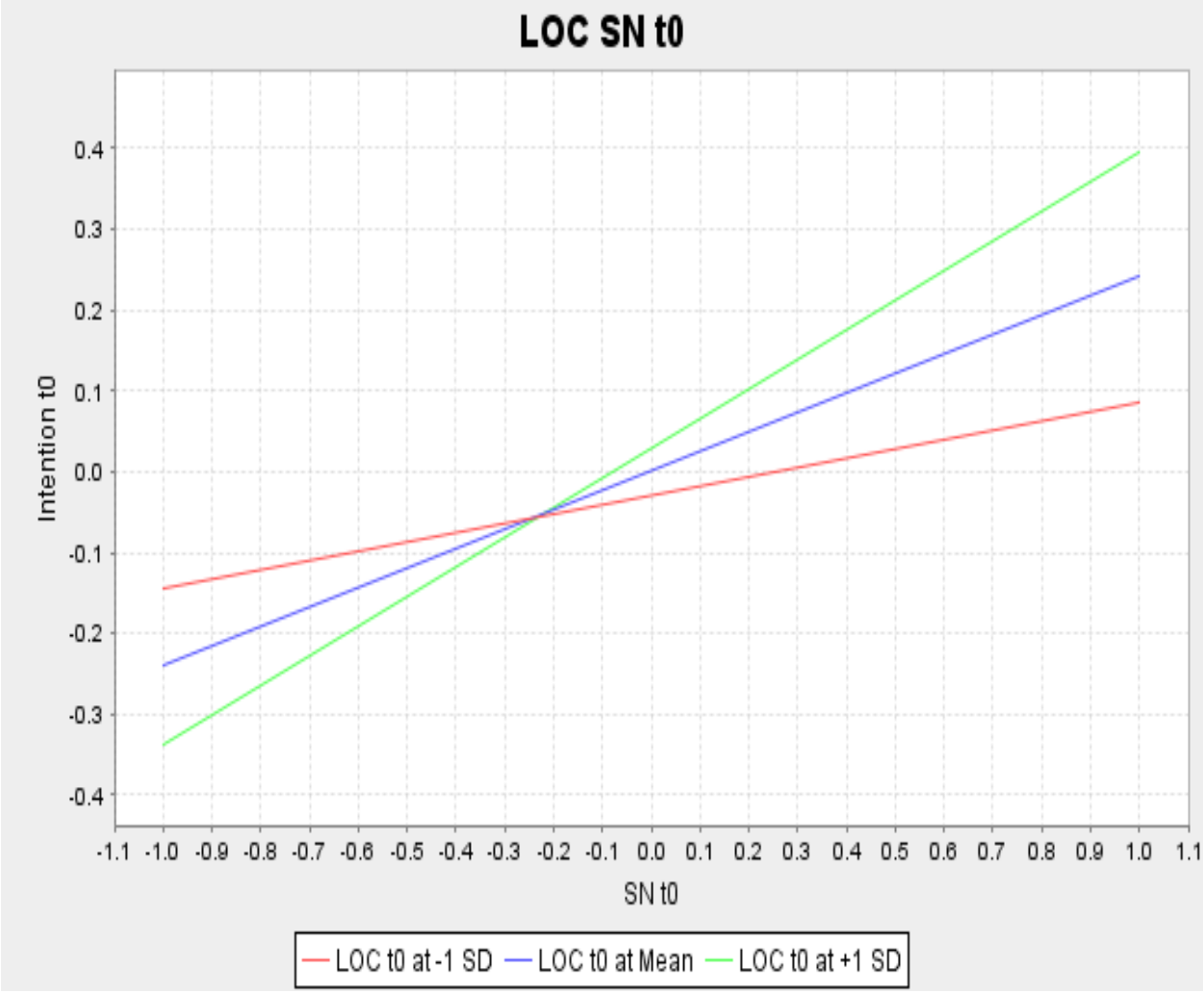
Formative Indicators VIF Levels at t_0 and t_1			
	VIF		**VIF**
t0		**t1**	
IOATTA1	2.1617	IOATTA1	3.4301
IOATTA10	1.6214	IOATTA10	2.5111
IOATTA11	1.9608	IOATTA11	2.0880
IOATTA2	2.5667	IOATTA2	4.5372
IOATTA3	1.5231	IOATTA3	3.5380
IOATTA4	2.0677	IOATTA4	1.9175
IOATTA5	1.5450	IOATTA5	1.8398
IOATTA6	1.6618	IOATTA6	1.5600
IOATTA7	1.7698	IOATTA7	2.5485
IOATTA8	1.4551	IOATTA8	2.2189
IOATTA9	1.8333	IOATTA9	2.0826
ISNA1	2.0810	ISNA1	1.4509
ISNA5	2.0810	ISNA5	1.4509
PBCA_1	2.0439	PBCA_1	2.4946
PBCA_2	3.2908	PBCA_2	2.9211
PBCA_3	3.3650	PBCA_3	3.8839
PBCA_4	1.6620	PBCA_4	1.8337
PBCA_5	1.8560	PBCA_5	1.4078
PBCA_6	1.8125	PBCA_6	2.0845
PBCA_7	1.8919	PBCA_7	2.4029

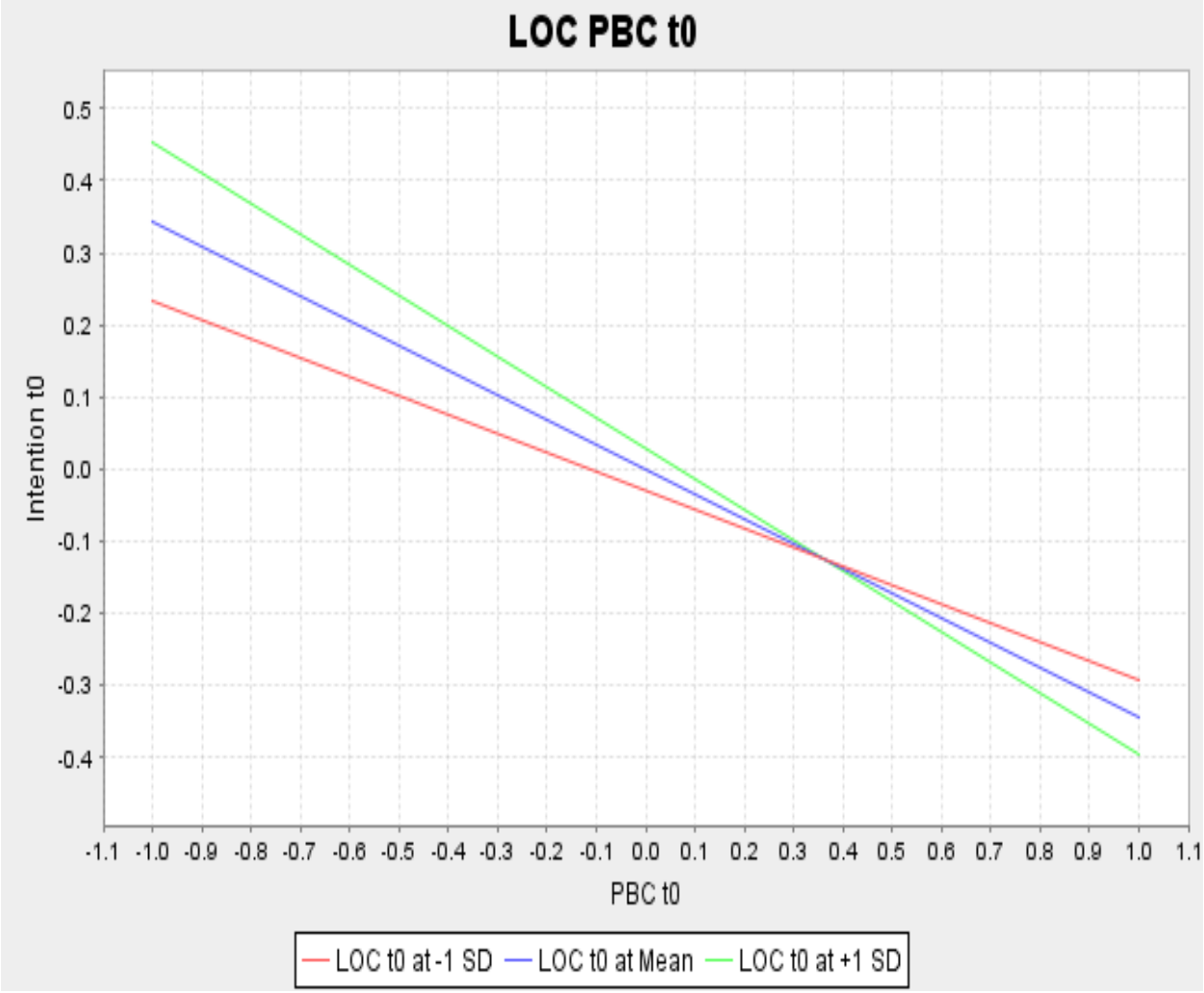
Appendix 13: Formative Indicator Decision-Making

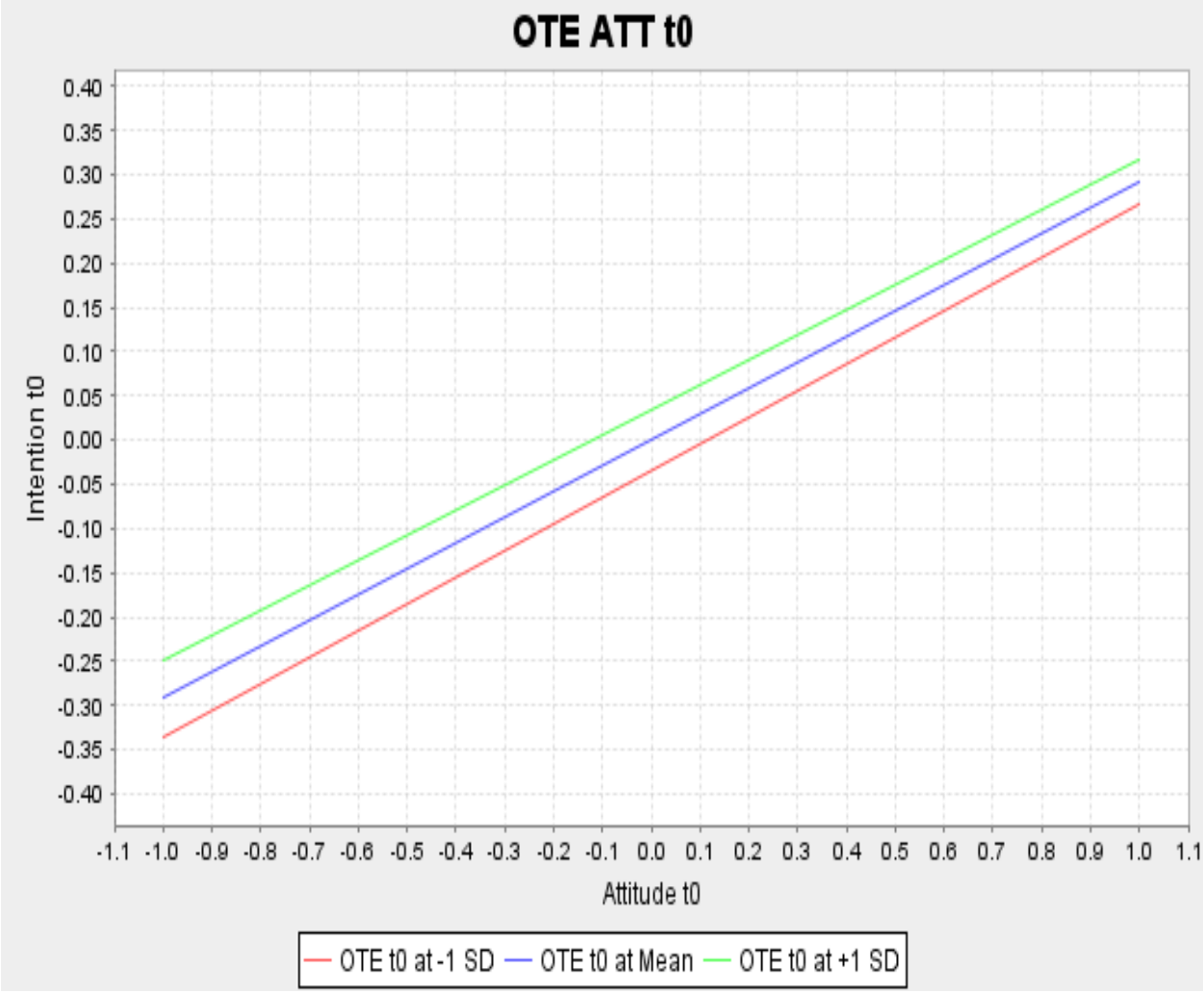
Formative Indicator Decision-Making					
	P Values	**Outer Weight Significance**	**Outer Loading**	**Outer Loading Above .5**	
IOATTA1 -> Attitude t0	0.8134	No	0.4492	No	Remove
IOATTA10 -> Attitude t0	0.0016	Yes	0.7836	Yes	
IOATTA11 -> Attitude t0	0.2205	No	0.0341	No	Remove
IOATTA2 -> Attitude t0	0.8946	No	0.3267	No	Remove
IOATTA3 -> Attitude t0	0.5040	No	-0.0345	No	Remove
IOATTA4 -> Attitude t0	0.0643	No	0.6014	Yes	
IOATTA5 -> Attitude t0	0.1899	No	0.0604	No	Remove
IOATTA6 -> Attitude t0	0.9929	No	0.1709	No	Remove
IOATTA7 -> Attitude t0	0.5045	No	0.1784	No	Remove
IOATTA8 -> Attitude t0	0.1106	No	0.0083	No	Remove
IOATTA9 -> Attitude t0	0.2608	No	0.5163	Yes	
ISNA1 -> SN t0	0.0089	Yes	0.9882	Yes	
ISNA5 -> SN t0	0.5587	No	0.8184	Yes	
PBCA_1 -> PBC t0	0.3377	No	0.7539	Yes	
PBCA_2 -> PBC t0	0.4204	No	0.7261	Yes	
PBCA_3 -> PBC t0	0.5896	No	0.6590	Yes	
PBCA_4 -> PBC t0	0.4728	No	0.0643	No	Remove
PBCA_5 -> PBC t0	0.3087	No	0.6606	Yes	
PBCA_6 -> PBC t0	0.5807	No	-0.0037	No	Remove
PBCA_7 -> PBC t0	0.3118	No	-0.0026	No	Remove
IOATTA1 -> Attitude t1	0.0223	Yes	0.5932	Yes	
IOATTA10 -> Attitude t1	0.0014	Yes	0.6014	Yes	
IOATTA11 -> Attitude t1	0.7157	No	0.1374	No	Remove
IOATTA2 -> Attitude t1	0.2964	No	0.3842	No	Remove
IOATTA3 -> Attitude t1	0.0500	Yes	0.2246	No	
IOATTA4 -> Attitude t1	0.0103	Yes	0.5774	Yes	
IOATTA5 -> Attitude t1	0.4110	No	0.2137	No	Remove
IOATTA6 -> Attitude t1	0.8783	No	0.1689	No	Remove
IOATTA7 -> Attitude t1	0.3553	No	0.1811	No	Remove
IOATTA8 -> Attitude t1	0.1799	No	0.0800	No	Remove
IOATTA9 -> Attitude t1	0.7319	No	0.4077	No	Remove
ISNA1 -> SN t1	0.0095	Yes	0.8474	Yes	
ISNA5 -> SN t1	0.0003	Yes	0.9132	Yes	
PBCA_1 -> PBC t1	0.2482	No	0.6245	Yes	
PBCA_2 -> PBC t1	0.8997	No	0.3745	No	Remove
PBCA_3 -> PBC t1	0.5576	No	0.5091	Yes	
PBCA_4 -> PBC t1	0.3031	No	-0.1785	No	Remove
PBCA_5 -> PBC t1	0.3590	No	0.5535	Yes	
PBCA_6 -> PBC t1	0.2837	No	-0.0694	No	Remove
PBCA_7 -> PBC t1	0.6765	No	0.0171	No	Remove

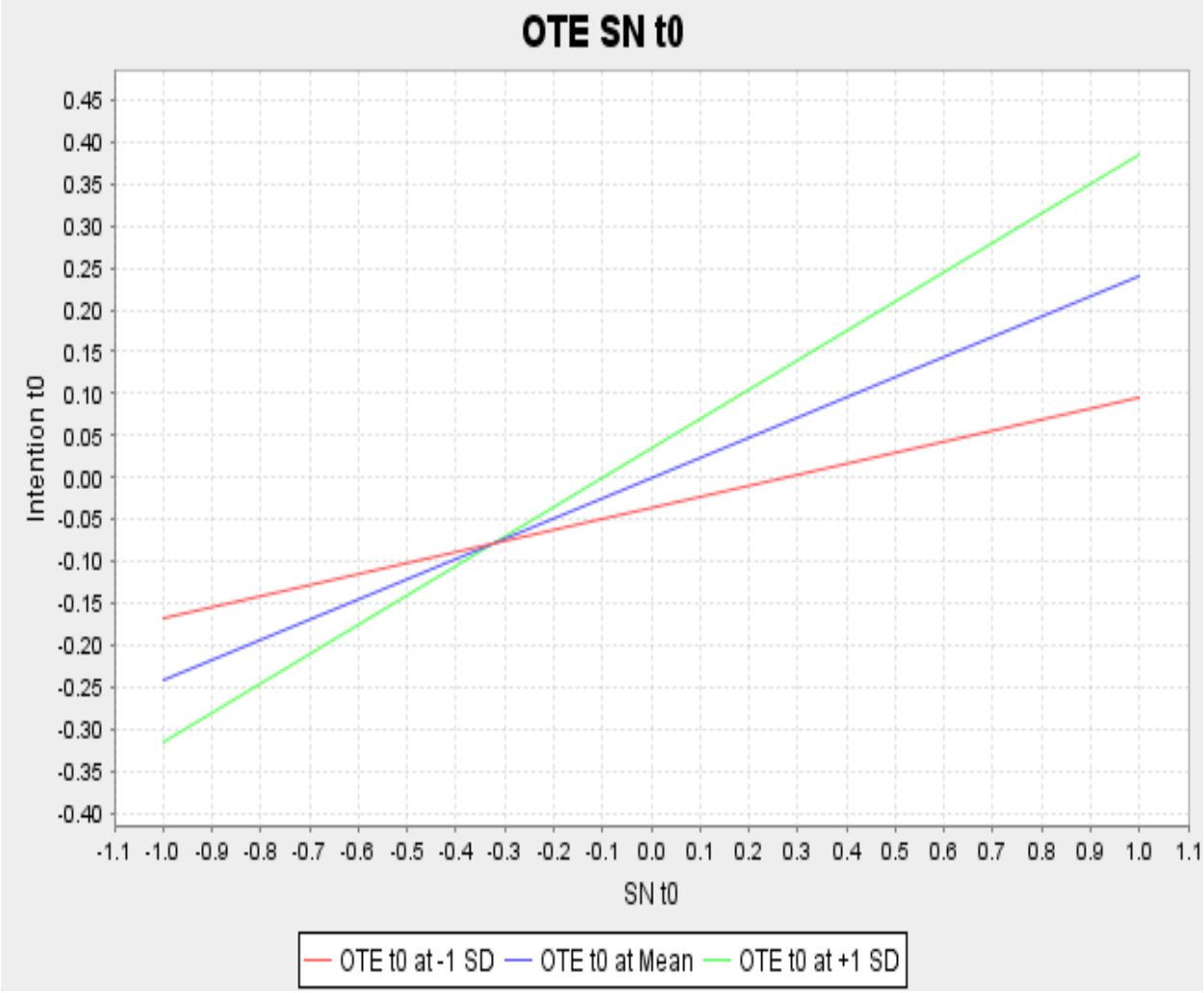
Appendix 14: Moderating Slope Plot

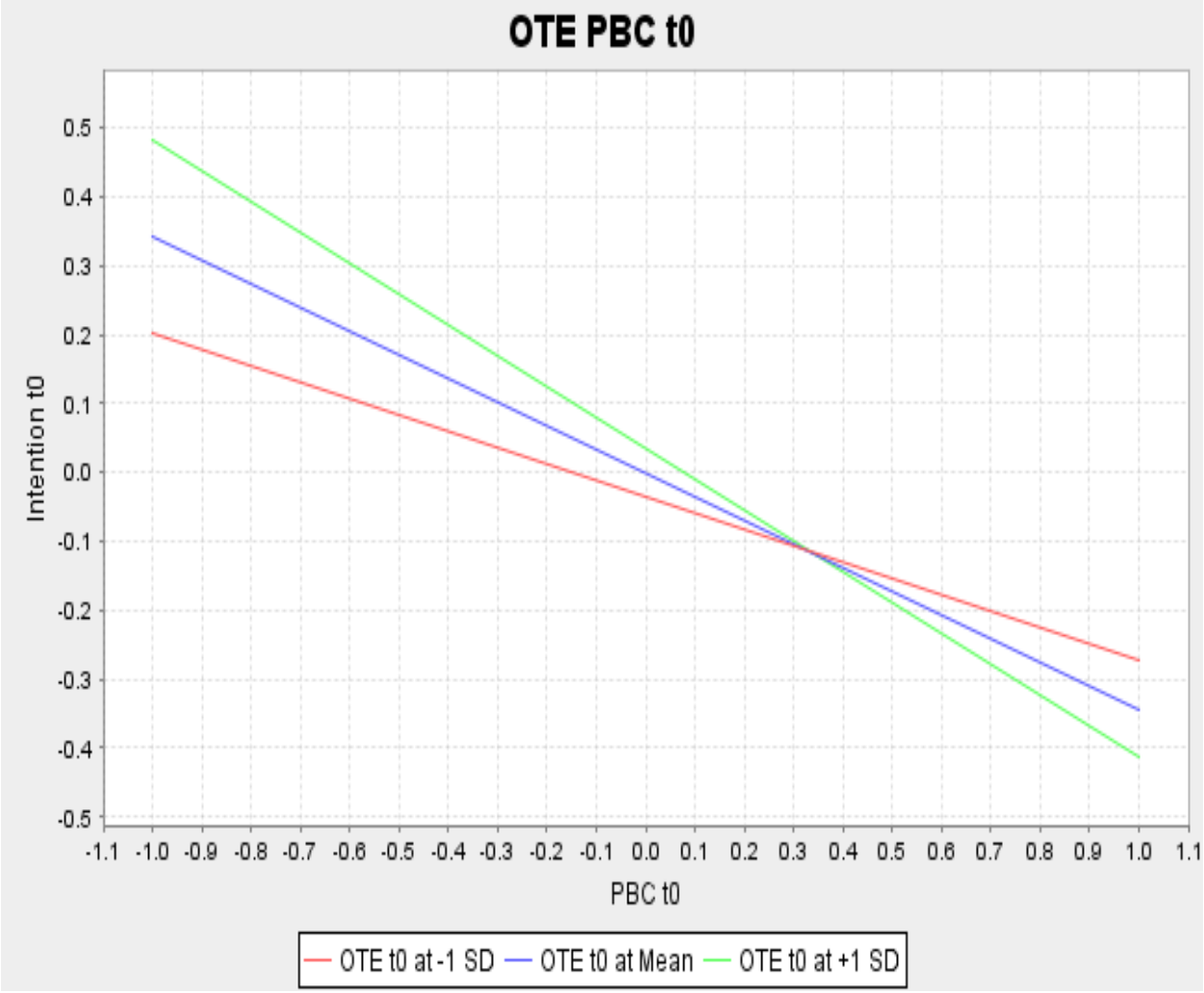


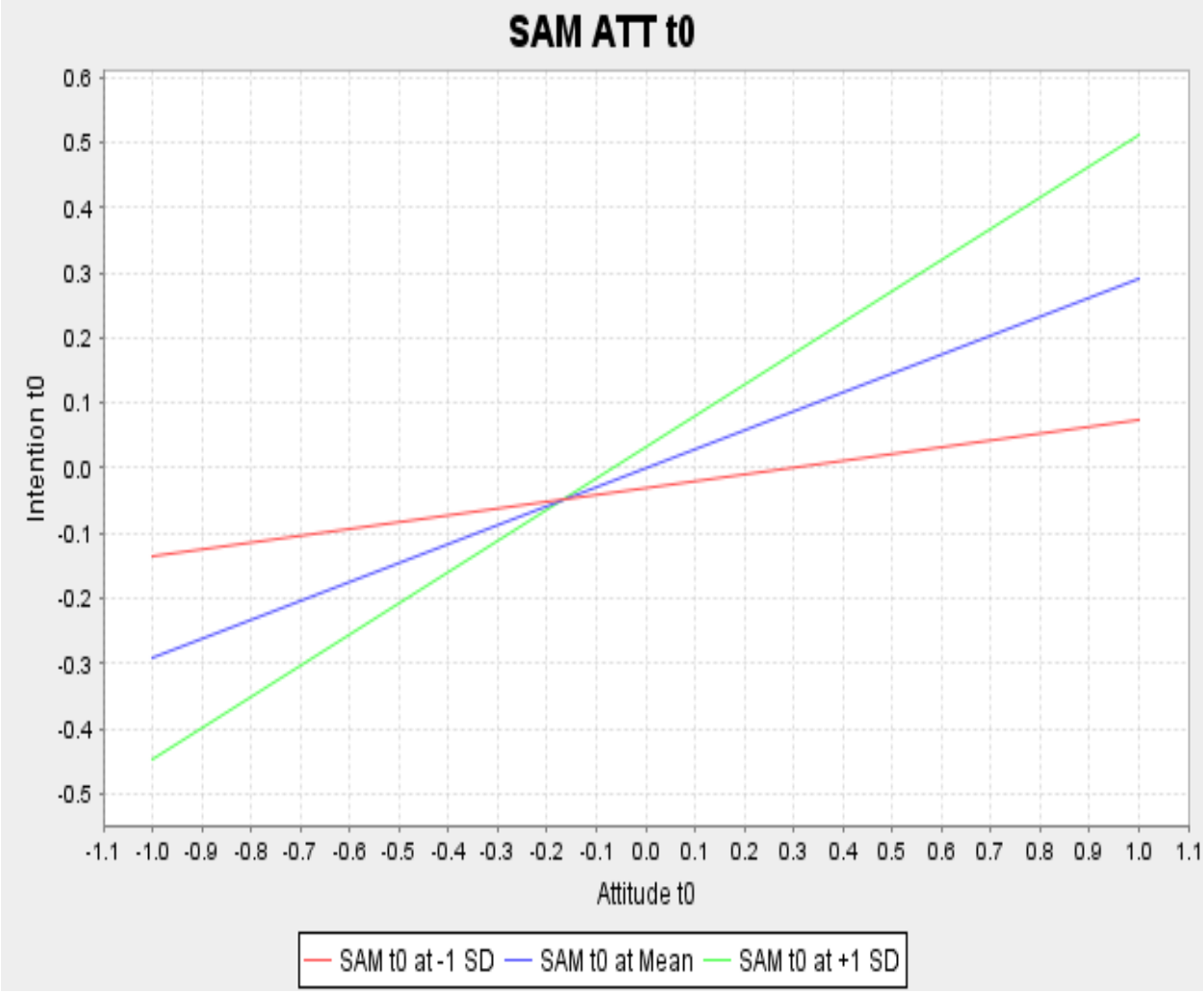

LOC SN t0
Intention t0
0.4
0.3
0.2
0.1
0.0
-0.1
-0.2
-0.3
-0.4
-1.1 -1.0 -0.9 -0.8 -0.7 -0.6 -0.5 -0.4 -0.3 -0.2 -0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1
SN t0
LOC t0 at -1 SD
LOC t0 at Mean
LOC t0 at +1 SD

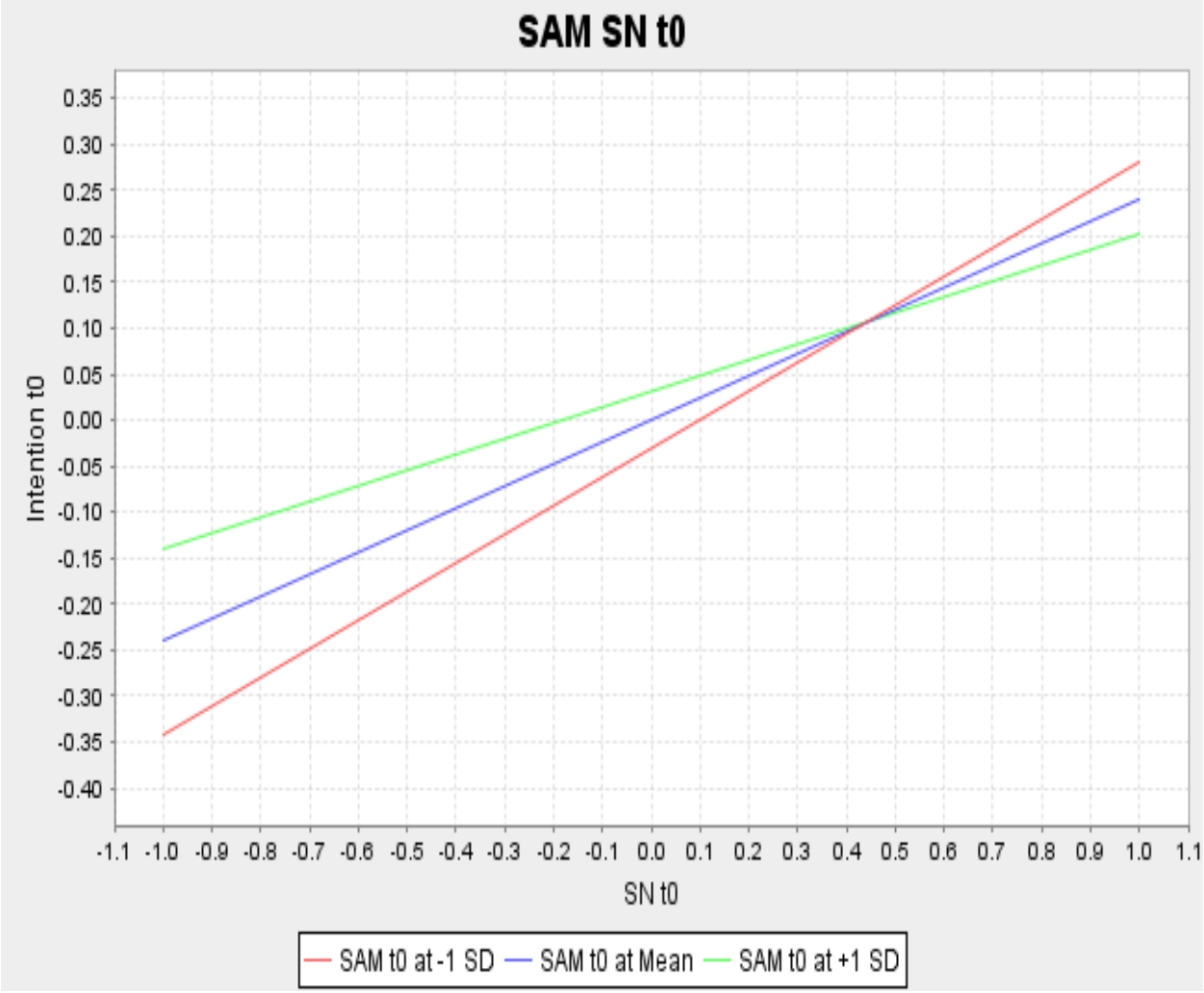

LOC PBC t0
Intention t0
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
-0.2
-0.3
-0.4
-1.1 -1.0 -0.9 -0.8 -0.7 -0.6 -0.5 -0.4 -0.3 -0.2 -0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1
PBC t0
LOC t0 at -1 SD
LOC t0 at Mean
LOC t0 at +1 SD

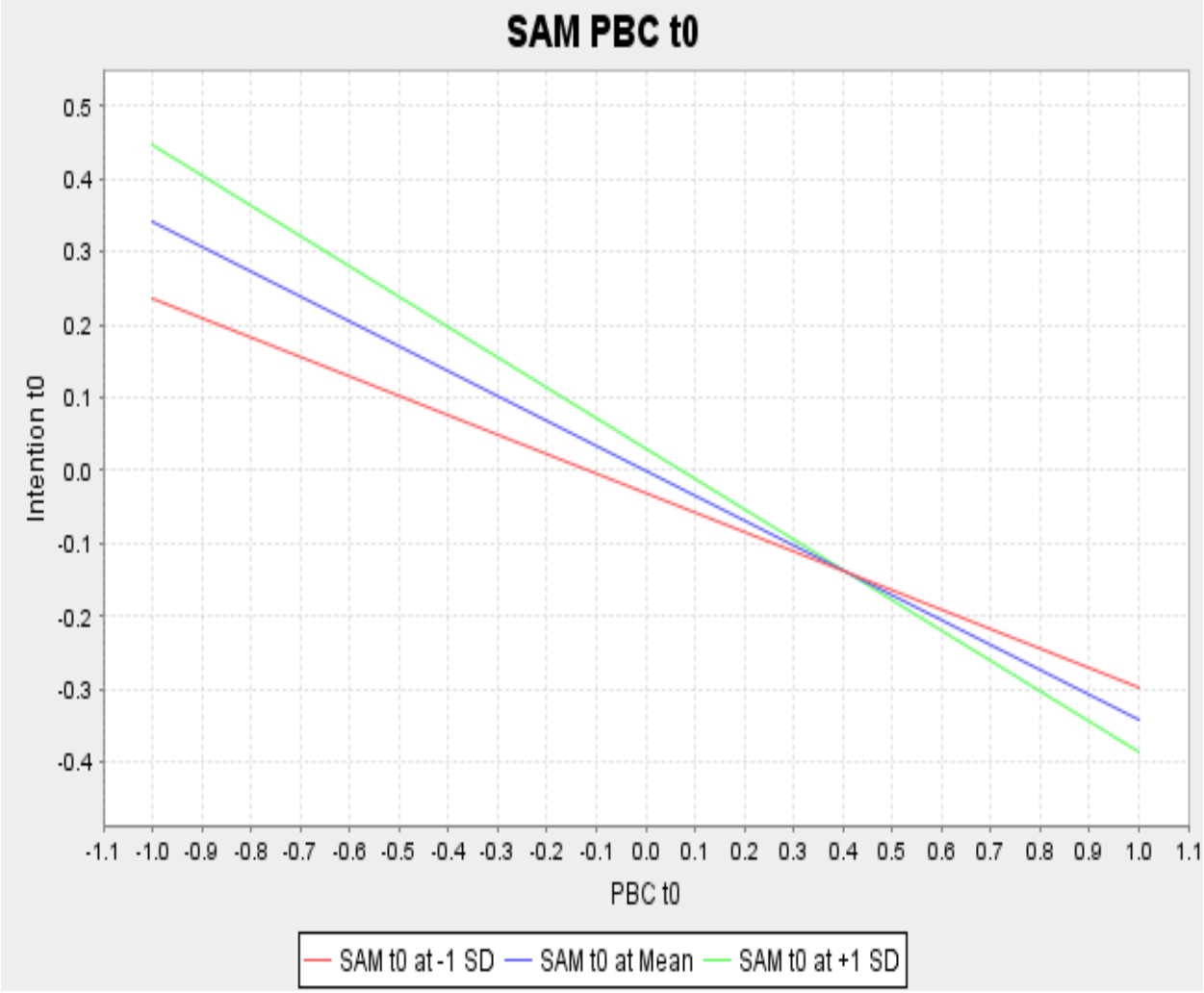

OTE ATT t0
Intention t0
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
-0.25
-0.30
-0.35
-0.40
-1.1 -1.0 -0.9 -0.8 -0.7 -0.6 -0.5 -0.4 -0.3 -0.2 -0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1
Attitude t0
OTE t0 at -1 SD
OTE t0 at Mean
OTE t0 at +1 SD


OTE SN t0
Intention t0
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
-0.25
-0.30
-0.35
-0.40
-1.1 -1.0 -0.9 -0.8 -0.7 -0.6 -0.5 -0.4 -0.3 -0.2 -0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1
SN t0
OTE t0 at -1 SD
OTE t0 at Mean
OTE t0 at +1 SD


OTE PBC t0
Intention t0
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
-0.2
-0.3
-0.4
-0.5
-1.1 -1.0 -0.9 -0.8 -0.7 -0.6 -0.5 -0.4 -0.3 -0.2 -0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1
PBC t0
OTE t0 at -1 SD
OTE t0 at Mean
OTE t0 at +1 SD


SAM ATT t0
Intention t0
0.6
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
-0.2
-0.3
-0.4
-0.5
-1.1 -1.0 -0.9 -0.8 -0.7 -0.6 -0.5 -0.4 -0.3 -0.2 -0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1
Attitude t0
SAM t0 at -1 SD
SAM t0 at Mean
SAM t0 at +1 SD


SAM SN t0
Intention t0
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
-0.25
-0.30
-0.35
-0.40
-1.1 -1.0 -0.9 -0.8 -0.7 -0.6 -0.5 -0.4 -0.3 -0.2 -0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1
SN t0
SAM t0 at -1 SD
SAM t0 at Mean
SAM t0 at +1 SD


SAM PBC t0
Intention t0
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
-0.2
-0.3
-0.4
-1.1 -1.0 -0.9 -0.8 -0.7 -0.6 -0.5 -0.4 -0.3 -0.2 -0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1
PBC t0
SAM t0 at -1 SD
SAM t0 at Mean
SAM t0 at +1 SD