



The role of pervasive skills in the academic and professional preparation  
of accounting students in the University of KwaZulu-Natal

**Favourite Mhlongo**  
(Student No.: 954060236)

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School of Accounting, Economics and Finance

College of Law and Management Studies

Westville Campus

Supervisors: Professor Mabutho Sibanda and Professor Msizi Mkhize

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## DECLARATION

I, **Favourite Mhlongo** declare that:

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Signed: ■■■■■■■■■■ Date: 28 April 2022

## DEDICATION

This thesis is dedicated to the Almighty God and my family – my husband, Thulani Mhlongo and my two precious daughters, Luyanda and Londiwe Mhlongo.

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## ABSTRACT

### **The role of pervasive skills in the academic and professional preparation of accounting students in the University of KwaZulu-Natal**

#### **Abstract**

The accounting profession has changed dramatically over the past few years. Some perceive the changes that have taken place to have possibly resulted in an added focus on pervasive (or soft skills) in the profession. However, an expectation gap still exists between what employers of accounting graduates and what graduates have to offer in terms of pervasive skills is revealed in several studies. Hence, the pressure on the accounting academic programme to produce employment-ready, professional, and flexible graduates is increasing as various stakeholders, including employers and professional bodies, make more calls. Various Higher education institutions in South Africa that offer SAICA accredited accounting qualifications have responded to the concerns by implementing various interventions designed to ensure that accounting students as aspirant chartered accountants are equipped with skills, both technical and pervasive, necessary for them to be work-ready for a professional accounting environment and also achieve the best possible academic performance. Despite that, research studies indicate that employers of accounting graduates believe that accounting graduates still enter the job market with a poor command of pervasive skills and are ‘not job-ready.’

Following a case study design, using the mixed-methods approach, this study addressed the aim of the study through five research questions. Firstly, it explored the factors that have resulted in pervasive skills coming to the fore in the accounting profession in the recent past, guided by the Human Capital Theory. Furthermore, it sought to determine which of the selected pervasive skills were rated highly for securing entry-level employment in the field by two critical stakeholders, the accounting students, and academics in the professional academic programme. Additionally, the study investigated the factors that hinder or promote the development of pervasive skills by accounting students from Bronfenbrenner’s Bioecological theoretical lens. Lastly, the influence of the selected pervasive skills on the work readiness and academic performance of accounting students aspiring to be chartered accountants was explored.

From the results, it emerged that several factors have resulted in pervasive skills coming to the fore, including globalization and increased competition. It also emerged that there were similarities and differences in the rating of the selected pervasive skills by accounting students and academics. For instance, both cohorts of respondents believed critical thinking,

communication, and problem-solving skills are important for entry-level employment in the accounting profession. The results also showed that the factors that affect the development of pervasive skills by accounting students are multifaceted and include a range of person, process, context, and time-based factors. The selected pervasive skills were also discovered to have a significant association with the accounting students' work-readiness and academic performance in the professional degree.

These findings motivate the continued prioritization of pervasive skills by SAICA-accredited accounting programmes in South Africa, as suggested by the CA2025 project, particularly in the current era marked by global economies, increased use of technology, and shifting accounting/audit client demands. Additionally, based on the findings, the continuous emphasis on pervasive skills is justified, as these skills have a favourable influence on the academic performance and work readiness of accounting students striving toward becoming chartered accountants.

**Keywords:** pervasive skills, work-readiness, academic performance, skills development, employability

# Contents

DECLARATION .....	ii
DEDICATION .....	iii
ACKNOWLEDGEMENTS .....	iv
ABSTRACT.....	v
LIST OF TABLES .....	xiii
LIST OF FIGURES .....	xv
LIST OF ACRONYMS AND ABBREVIATIONS.....	xvii
KEY TERMS .....	xix
CHAPTER ONE.....	1
CONTEXTUALISATION OF RESEARCH.....	1
1.1 Introduction and background .....	1
1.2 Research problem statement .....	3
1.3 Research aims and objectives .....	7
1.3.1 Aims of the study .....	7
1.3.2 Objectives of the study.....	7
1.4 Research questions.....	8
1.5 Rationale for the study .....	8
1.6 Significance and contribution of the study.....	9
1.7 The design and methodological context of the study.....	10
1.8 Summary data corpus.....	14
1.9 Structure of the thesis.....	15
1.10 Chapter summary .....	15
CHAPTER TWO .....	16
METHODOLOGY .....	16
2.1 Introduction.....	16
2.2 Research objectives of the study .....	16
2.3 Research design and methodology.....	17
2.3.1 Research design.....	17
2.3.2 Case study design.....	18
2.3.3 Research approach .....	19
2.4 Philosophical foundation.....	20
2.5 The nature of the study.....	21
2.6 The research site/ location of the study.....	22

2.7	Research participants .....	23
2.8	Sampling methodology .....	24
2.9	Data collection .....	26
2.9.1	Quantitative data .....	26
2.9.2	Qualitative data .....	33
2.10	Validity and reliability of quantitative data collection instruments .....	35
2.10.1	Validity .....	35
2.10.2	Reliability: Data collection instruments.....	37
2.12	Qualitative data collection: Trustworthiness/ Rigour .....	50
2.13	Pilot study .....	51
2.14	Data analysis .....	53
2.14.1	Qualitative data analysis .....	53
2.14.2	Quantitative data analysis .....	57
2.15	Ethical considerations .....	64
2.16	Chapter summary .....	65
CHAPTER THREE .....		66
BACKGROUND, DRIVERS OF CHANGE, AND IMPORTANCE OF PERVASIVE SKILLS IN ACCOUNTING .....		66
3.1	Introduction.....	66
3.2	Theoretical Framework: Human Capital Theory .....	66
3.2.1	History of the framework.....	66
3.2.2	Definition of the framework .....	67
3.2.3	Description of the HCT framework .....	67
3.2.4	Use of the HCT in research studies.....	68
3.2.5	Justification: Use of the Human Capital Theory and Samagaio and Rodrigues’s 2016 Model	69
3.3	Conceptualization of skills and pervasive skills .....	73
3.4	Key stakeholder groups in accounting .....	77
3.4.1	Main regulatory body: IFAC.....	77
3.4.2	Professional bodies .....	78
3.4.3	Professional firms (Accounting firms).....	79
3.4.4	The academic programme (Including academics) .....	80
3.4.5	Prospective employers .....	81
3.5	The accounting profession today .....	81
3.6	Drivers of change in the 21 <sup>st</sup> -century accounting profession .....	82
3.6.1	Globalisation and the accounting profession .....	82

3.6.2	The use of technology/digitisation/artificial intelligence in accounting .....	84
3.6.3	Changes in client and employer demands/expectations .....	88
3.6.4	The requirements and expectations of regulatory bodies .....	91
3.6.5	Increased competition for accounting jobs .....	93
3.6.6	Evolving roles of accountants .....	95
3.6.7	Accounting scandals .....	99
3.7	Perceived importance of pervasive skills in different contexts .....	99
3.8	The importance of the selected pervasive skills in the accounting profession.....	101
3.8.1	Communication skills in accounting.....	101
3.8.2	Critical thinking in accounting.....	106
3.8.3	Decision-making in accounting .....	109
3.8.4	Problem-solving in accounting .....	110
3.8.5	Stress-management skills in accounting .....	112
3.9	Presentation and discussion of findings .....	114
3.10	Chapter summary .....	157
CHAPTER FOUR.....		158
PERVASIVE SKILLS FOR ENTRY-LEVEL EMPLOYMENT IN THE ACCOUNTING PROFESSION.....		158
4.1	Introduction.....	158
4.2	Employment of accountants: public practice, business, and self-employment.....	158
4.3	Accounting graduates as trainee accountants and junior accountants.....	160
4.4	Hard vs. soft (pervasive) skills debate in accounting.....	166
4.5	Pervasive skills in specialist areas of accounting.....	170
4.5.1	Financial Accounting/Reporting .....	171
4.5.2	Auditing .....	171
4.5.3	Taxation .....	174
4.5.4	Management Accounting .....	175
4.6	Pervasive skills for entry-level employment in accounting .....	175
4.7	The responsibility for pervasive skills development in aspirant accountants .....	178
4.8	Presentation and interpretation of findings .....	179
4.8.1	Descriptive data.....	180
4.8.2	Inferential statistics .....	185
4.9	Chapter summary .....	193
CHAPTER FIVE .....		194
THE DEVELOPMENT OF PERVASIVE SKILLS BY ACCOUNTING STUDENTS .....		194
5.1	Introduction.....	194

5.2	Theoretical framework.....	194
5.2.1	Development science .....	194
5.2.2	Definition of the Bronfenbrenner’s Bioecological Theory .....	196
5.2.3	History and development and description: Bronfenbrenner’s Bioecological Theory .	196
5.3	Challenges with pervasive skills development of accounting graduates .....	203
5.4	Current debate: Responsibility for pervasive skills development .....	204
5.5	The academic programme and pervasive skills development .....	205
5.6	Factors that enable/hinder the development of pervasive skills.....	210
5.6.1	The development of pervasive skills is better developed in the workplace .....	211
5.6.2	The acquisition of pervasive skills is independent of the accounting curriculum.....	215
5.6.3	Time constraints.....	217
5.6.4	Large class sizes at university .....	217
5.6.6	No separate course or module designed for pervasive skills .....	218
5.6.5	The technical nature of the professional academic programme .....	219
5.6.7	Heavy student academic workloads:.....	222
5.6.8	Academic staff workloads.....	224
5.6.9	Teaching methods and strategies .....	226
5.6.10	Mentoring and coaching opportunities.....	230
5.6.11	The Y and Z- generation of aspirant accountants .....	232
5.6.12	Attitudes, perceptions, and awareness: significance of pervasive skills .....	235
5.6.13	Personality and traits: accountants and prospective accountants .....	237
5.6.14	Students’ backgrounds .....	238
5.6.15	The role, competence, and attitudes of academics for instilling pervasive skills .....	240
5.7	Presentation and discussion of findings: themes.....	241
5.8	Chapter summary .....	284
CHAPTER SIX.....		285
PERVASIVE SKILLS AND WORK READINESS .....		285
6.1	Introduction.....	285
6.2	Work-readiness: conceptualisation .....	285
6.3	Higher Education, pervasive skills and work-readiness .....	287
6.4	Concerns over work-readiness of accounting students and graduates .....	289
6.5	Work readiness and pervasive skills, a possible relationship?.....	292
6.6	Other factors affecting the work readiness of accounting students.....	294
6.7	Presentation and interpretation of findings .....	295
6.7.1	Descriptive statistics of the Life Skills Assessment Scale (LSAS).....	295
6.7.2	Descriptive statistics of the Work Readiness Scale (WRS) .....	302

6.7.3	Inferential statistics .....	305
6.8	Discussion of findings.....	313
6.9	Chapter summary .....	316
CHAPTER SEVEN .....		317
PERVASIVE SKILLS AND THE ACADEMIC PERFORMANCE OF ACCOUNTING STUDENTS		
.....		317
7.1	Introduction.....	317
7.2	Academic performance .....	317
7.3	Variables linked to academic performance .....	319
7.4	Pervasive skills and academic performance: a possible relationship? .....	320
7.4.1	Communication skills and academic performance.....	322
7.4.2	Critical thinking skills and academic performance .....	323
7.4.3	Decision-making skills and academic performance.....	324
7.4.4	Problem-solving skills and academic performance.....	325
7.4.5	Stress-management skills and academic performance .....	326
7.5	Academic performance in Accounting .....	327
7.6	The selected pervasive skills and academic performance in Accounting .....	331
7.6.1	Communication skills and academic performance in accounting .....	331
7.6.2	Critical thinking skills and academic performance in accounting .....	333
7.6.3	Decision-making skills and academic performance in accounting .....	334
7.6.4	Problem-solving skills and academic performance in accounting .....	334
7.6.5	Stress-management skills and academic performance in accounting .....	335
7.7	Presentation and interpretation of findings .....	336
7.8	Discussion of findings.....	338
7.9	Chapter Summary .....	342
CHAPTER EIGHT .....		343
SUMMARY AND CONCLUSION.....		343
8.1	Introduction.....	343
8.2	Overall results of the study .....	343
8.3	Summary of findings per research question.....	345
8.4	Contribution of the study .....	353
8.5	Implications of the study.....	356
8.6	Limitations of the study .....	357
8.7	Originality of the research.....	358
8.8	Recommendations stemming from findings .....	359
8.9	Recommendations for future research .....	360

8.10 Summary and conclusion.....	361
Reference List.....	362
ANNEXURE 1: WORK READINESS SCALE (WRS) – 63 ITEMS.....	401
ANNEXURE 2: SURVEY QUESTIONNAIRE: ACCOUNTING STUDENTS.....	404
ANNEXURE 3: QUESTIONNAIRE: ACCOUNTING ACADEMICS .....	411
ANNEXURE 4: FOCUS GROUP INTERVIEW SCHEDULE: ACCOUNTING STUDENTS .....	413
ANNEXURE 5: INDIVIDUAL INTERVIEW SCHEDULE: ACCOUNTING ACADEMICS .....	414
ANNEXURE 6: INFORMED CONSENT LETTER (PARTICIPANTS).....	416
ANNEXURE 7: GATEKEEPER’S LETTER .....	418
ANNEXURE 8: EDITORIAL LETTER .....	419
ANNEXURE 9 – ETHICAL CLEARANCE.....	420

## LIST OF TABLES

<b>Table</b>	<b>Title</b>	<b>Pg. No</b>
Table 1.1	Summary of the research objectives (RO), data collection approaches, data analysis, and participants	14
Table 2.1	Response rates	29
Table 2.2	Exploratory Factor Analysis: Life Skills Assessment Scale	38
Table 2.3	Factor commonalities of the Personal Characteristics (PC) scale of work readiness	40
Table 2.4	Model fitness statistics for PC	41
Table 2.5	Factor commonalities of the Organisational Acumen (OA) sub-scale of work readiness	42
Table 2.6	Model fitness statistics for OA	43
Table 2.7	Factor commonalities of the Work Competence (WC) sub-scale of work readiness	44
Table 2.8	Model fitness statistics for WC	45
Table 2.9	Factor commonalities of the Social Intelligence (SI) sub-scale of the work readiness	45
Table 2.10	Model fitness statistics for SI	46
Table 2.11	Correlation: Degree of association	60
Table 3.1	List of soft (pervasive) skills according to different literature sources	75
Table 3.2	The profile of focus group discussion 1 participants	117
Table 3.3	The profile of focus group discussion 2 participants	118
Table 4.1	Demographic profile of student respondents: Gender	180
Table 4.2	Demographic profile of student respondents: Race	180
Table 4.3	Demographic profile of student respondents: Age	181
Table 4.4	Demographic profile of student respondents: Years of employment	181
Table 4.5	High school background of student: English subject	182
Table 4.6	High school background of student: Type of school attended	182
Table 4.7	High school background of student: Academic Performance: School	183
Table 4.8	University Academic Performance	184
Table 4.9	Self-study hours	185
Table 4.10	Pervasive skills important for entry-level professional accounting employment (training articles)	186
Table 5.1	The current curriculum: SAICA-accredited accounting degree: UKZN	220

Table 5.2	Brigham Young University, change in the content of their accounting courses as early as 1994 to incorporate a stronger emphasis on pervasive skills	227
Table 6.1	Descriptive statistics for Communication skills, a subscale of the LSAS scale	295
Table 6.2	Descriptive statistics for Critical thinking skills, a subscale of the LSAS scale	297
Table 6.3	Descriptive statistics for Decision-making, a subscale of the LSAS scale	298
Table 6.4	Descriptive statistics for Problem-solving, a subscale of the LSAS scale	300
Table 6.5	Correlation results: Pervasive skills and overall work-readiness	301
Table 6.6	Descriptive analysis of the Work Readiness Scale (WRS) items	303
Table 6.7	Correlation results: Pervasive skills and work-readiness	306
Table 6.8	Multivariate Tests: Pervasive skills and overall work-readiness	310
Table 6.9	Multivariate Tests: Pervasive skills and individual subscales of work readiness	312
Table 7.1	Correlations of pervasive skills and academic performance	336
Table 7.2	Regression of academic performance on pervasive skills with control variables.	337
Table 8.1	Main findings: Research question two	347

## LIST OF FIGURES

<b>Figure</b>	<b>Title</b>	<b>Pg. no.</b>
Figure 2.1	CFA model for Personal Characteristics (PC)	41
Figure 2.2	CFA model for Organisational Acumen (OA)	43
Figure 2.3	CFA model for Work Competence (WC)	44
Figure 2.4	CFA model for Social Intelligence (SI)	46
Figure 2.5	Overall Model	47
Figure 2.6	Regression Model 1: Research objective 4	63
Figure 2.7	Regression Model 2: Research objective 5	64
Figure 3.1	Samagaio and Rodrigues Model	70
Figure 3.2	RQ1: Word Cloud	118
Figure: 3.3	Main theme 1 with sub-themes	119
Figure 3.4	Main theme 2 with sub-themes	127
Figure 3.5	Main theme 3 with sub-themes	141
Figure 3.6	Main theme 4 with sub-theme	151
Figure 4.1	Lecture attendance	183
Figure 4.2	Influence to join the accounting field	184
Figure 4.3	Perceived overall academic performance in the accounting degree	185
Figure 5.1	Students' views of their development of pervasive skills (Paisey and Paisey, 2010)	215
Figure 5.2	Word Cloud: Data and Themes	241
Figure 5.3	Main themes	242
Figure 5.4	Main theme 1 with sub-themes	243
Figure 5.5	Main theme 2 with sub-themes	254
Figure 5.6	Main theme 3 with sub-themes	262
Figure 5.7	Main theme 4 with sub-theme	280
Figure 6.1	Communication skills items' ranking shows that the dominant trait is not speaking without assessing the situation (61.5%)	296
Figure 6.2	Critical thinking items' ranking shows a few dominant traits in the categories of "Very true/Always true of me" having percentages greater than 60%	297
Figure 6.3	Ranking of Decision-making items showing a few dominant traits with the categories of "Very true/Always true of me" having percentages greater than 60%	299
Figure 6.4	Ranking of Problem-solving items showing a few dominant traits with the categories of "Very true/Always true of me" having percentages greater than 60%	300

Figure 6.5	Ranking of stress-management items shows that none of the traits has high percentages in the “Very true/Always true of me” category	302
Figure 8.1	Summary of findings: Research question one	346
Figure 8.2	Proposed conceptual model	349
Figure 8.3	Relationship between selected pervasive skills and work-readiness	352
Figure 8.4	Relationship between selected pervasive skills and academic performance	352

## LIST OF ACRONYMS AND ABBREVIATIONS

ACCA:	ASSOCIATION OF CHARTERED CERTIFIED ACCOUNTANTS
AICPA:	AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS
APB:	AUDITING PRACTICES BOARD
APC:	ASSESSMENT OF PROFESSIONAL COMPETENCE
ATO:	ACCREDITED TRAINING OFFICES/ORGANISATION
CAs:	CHARTERED ACCOUNTANTS
CA (SA):	CHARTERED ACCOUNTANT (SOUTH AFRICA)
CEO:	CHIEF EXECUTIVE OFFICER
CFO:	CHIEF FINANCIAL OFFICER
CHE:	COUNCIL ON HIGHER EDUCATION
CIMA:	CHARTERED INSTITUTE OF MANAGEMENT ACCOUNTANTS
CPA:	CERTIFIED PUBLIC ACCOUNTANT
CPD:	CONTINUOUS PROFESSIONAL DEVELOPMENT
DBE:	DEPARTMENT OF BASIC EDUCATION
DOE:	DEPARTMENT OF EDUCATION
FSB:	FINANCIAL SERVICES BOARD
GDP:	GROSS DOMESTIC PRODUCT
HEI:	HIGHER EDUCATION INSTITUTION
IAASB:	INTERNATIONAL AUDITING AND ASSURANCE STANDARDS BOARD
IAESB:	INTERNATIONAL ASSURANCE EDUCATION STANDARDS BOARD
IAPN:	INTERNATIONAL AUDITING PRACTICE NOTE
IASs:	INTERNATIONAL ACCOUNTING STANDARDS
ICT:	INFORMATION AND COMMUNICATION TECHNOLOGY
IES:	INTERNATIONAL EDUCATION STANDARDS
IESB:	INTERNATIONAL EDUCATION STANDARDS BOARD
IFAC:	INTERNATIONAL FEDERATION OF ACCOUNTANTS
IFRS:	INTERNATIONAL FINANCIAL REPORTING STANDARDS
IRBA:	INTERNATIONAL REGULATORY BOARD FOR AUDITORS

ISA:	INTERNATIONAL STANDARD ON AUDITING
ISAE:	INTERNATIONAL STANDARD ON ASSURANCE ENGAGEMENT
ISQC:	INTERNATIONAL STANDARD ON QUALITY CONTROL
ISRE:	INTERNATIONAL STANDARDS ON REVIEW ENGAGEMENTS
ISRS:	INTERNATIONAL STANDARDS ON RELATED SERVICES
IT:	INFORMATION TECHNOLOGY
KZN:	KWAZULU-NATAL
LSAS:	LIFE SKILLS ASSESSMENT SCALE
NQF:	NATIONAL QUALIFICATIONS FRAMEWORK
PCOAB:	PUBLIC ACCOUNTING OVERSIGHT BOARD
RA:	REGISTERED AUDITOR
RAA:	REGISTERED AUDITORS AND ACCOUNTANTS
SAICA:	SOUTH AFRICAN INSTITUTE OF CHARTERED ACCOUNTANTS
TIPP:	TRAINING INSIDE PUBLIC PRACTICE
TOPP:	TRAINING OUTSIDE PUBLIC PRACTICE
UK:	UNITED KINGDOM
UKZN:	UNIVERSITY OF KWAZULU-NATAL
USA:	UNITED STATES OF AMERICA
WI-FI:	WIRELESS FIDELITY
WIL:	WORK INTEGRATED LEARNING
WRS:	WORK READINESS SCALE

## KEY TERMS

**Academic performance:** an outcome that demonstrates how far a person has achieved specified goals that were the focus of activities in instructional or educational environments (Spinath, 2012:1)

**Communication skills:** Communication skills are the ability to use language (repressively) and express information (expressively), and these skills include lip reading, finger spelling, sign language, and interpersonal relations. The four types of communication are verbal, written, non-verbal, and mediated (Mahmud, 2014: 127).

**Critical Thinking:** being intellectually engaged and skilled, as well as having responsible thinking that enables excellent judgement (Behar-Horenstein and Niu, 2011:26).

**Decision-making:** refers to a rational process that results in the selection of a preferred choice or plan of action from a set of options based on particular criteria (Wilson and Keil, 2001: 220).

**Graduate employability:** The graduate's ability to utilise his/her skills, attitudes, and ability to search for and retain a job (Nabi, 2003).

**Human capital:** Activities that impact future real income through the imbedding of resources in people" in his early writings, referring to it as "activities that influence future real income through the imbedding of resources in people (Becker, 1962:9).

**Pervasive skills:** These skills are also referred to as basic skills, soft skills, applied skills, key skills, generic skills, core skills, essential skills, or employability

skills. Pervasive qualities and skills are defined as the professional qualities and skills expected of CAs (SAICA 2010b:18).

**Problem-solving:** the ability to apply logic and abstract reasoning to pick among a variety of options when presented with a decision or option (Montano et al., 2001: 301).

**Skill:** the capacity of performing a certain task or activity based on an integrated knowledge content, coming from direct experience and from a mediated learning process (Bratianu and Vatamanescu, 2017:5).

**Stress management:** the ability to sustain and control when situations, people, and events place overwhelming demands on a person (Bukhsh et al., 2011).

**Work-readiness:** the extent to which graduates are perceived to possess the attitudes and attributes that makes them prepared or ready for success in the work environment (Caballero and Walker, 2010:17).

**Z-generation:** members of the generation of people born between the mid-1990s and mid-2010s who are seen as confident users of new technology (<https://www.collinsdictionary.com/dictionary/english/generation-z>)

# CHAPTER ONE

## CONTEXTUALISATION OF RESEARCH

### 1.1 Introduction and background

It has been stated that Higher Education (HE) aims to produce work-ready graduates and build the economy through employment (Council of Higher Education, 2013). More specifically, universities have been presented as producing graduates with the skills that employers seek (Tsiligiris and Bowyer, 2021). Accordingly, ensuring that graduates are employable is one of the critical issues in South Africa due to the current unemployment crisis. Unemployment is a socioeconomic issue that comes with financial consequences and a slew of other issues, including dwindling economic interest, productivity, and the eroding of human capital; hence it is a top issue in South Africa because of these implications (Oluwajodu et al., 2015)

With this in mind, in South Africa, a National Qualifications Framework (NQF) was established in 1995, and it aims to provide the country with a coherent qualification system that promotes lifelong learning and generic/soft/pervasive skills acquisition. In addition, the Department of Higher Education and Training (DHET) in South Africa has, in the recent past, released a White Paper (DHET, 2013) emphasizing the importance of universities developing personal attributes and skills in students that will enable them to effectively and professionally address the needs of businesses and society as a whole. With that in mind, it would seem that the DHET expects universities to equip graduates with the skills they need to prosper in academics and professional careers (Abayadeera and Watty, 2014; Merino and Aucock, 2017).

Under these circumstances, ensuring that graduates are equipped with relevant skills and knowledge remains a goal for all institutions of higher learning. In fact, some may argue that the survival of higher education institutions depends on their ability to meet the expectations of the corporate domain with regard to graduates' skills and competencies (Uyar and Gungormus, 2011). For this reason, producing graduates with the required skills and competencies expected in the workplace for securing employment and achieving career success is critical. Coupled with that, ensuring that all graduates achieve good academic performance and are work-ready are objectives taken seriously by many universities across the globe. It does not come as a surprise then that various scholars conduct research on skills, competencies, work readiness, and student academic performance across many fields and disciplines.

Globally, employers agree that the prospects of a graduate improve if the graduate is in possession of critical pervasive skills such as critical thinking, decision-making, and communication skills. It is argued that for graduates to contribute effectively to society sooner, they are expected to be better prepared for their productive roles in society (Griesel and Parker, 2009) and hence, be work-ready. With young graduates entering the ever-so-demanding workplace every year, the expectation of employers remains that they have an appropriate balance of technical and pervasive skills.

With specific reference to the accounting field, pervasive skills and attributes are a variety of skills that are also known as soft skills, generic skills, employability skills, transferrable skills, and even 21<sup>st</sup>-century skills. These skills include skills and attributes such as communication skills, time management, self-management, critical thinking, decision-making, problem-solving, stress management, teamwork, and many others. This study used the term ‘pervasive skills’ as an umbrella term inclusive of the selected pervasive skills under study: communication skills, critical thinking, problem-solving skills, decision-making skills, and stress management skills. In South Africa, accounting qualifications designed to prepare students for chartered accountancy are accredited by the South African Institute of Chartered Accountants (SAICA). The responsibility to ensure that accounting graduates achieve these skills is a shared responsibility between higher education (academic programme), training (training offices) providers, and SAICA as the regulatory body. Accordingly, universities offering SAICA accredited accounting programmes are expected to explain how they have addressed the development of pervasive skills by accounting students (Barac and Du Plessis, 2014). Indeed, pervasive skills are necessary for many professions, including accounting, and can no longer be regarded as ‘nice to have’ qualities.

The skills were selected because they have been identified as important in various studies. Moreover, the selected skills are consistent with those recommended/prescribed by professional bodies in accounting worldwide and, more specifically, a local professional body, the South African Institute of Chartered Accountants (SAICA), through its Competency Framework. The SAICA Competency Framework indicates, “Entry-level chartered accountants are required to display the highest proficiency in pervasive skills” (SAICA, 2010:19). The SAICA Competency Framework identifies pervasive skills, which are categorised as Ethical behaviour, and professionalism (IA), Personal attributes (IB), and Professional skills (IC), that aspiring chartered accountants should possess before entry into

the profession (SAICA, 2016a). However, The SAICA Competency consists of forty-three (43) specific pervasive skills and attributes that aspiring Chartered Accountants (CAs) should grasp at the highest level before gaining admission to the profession (SAICA, 2014a). It was impractical to test all 43 pervasive skills and attributes in one study since it would have rendered the data collection tool, the survey questionnaire, excessively long, potentially affecting the response rate. Moreover, the selection of these pervasive skills was based on their regular association with securing employment, career success, work readiness, and academic performance, as indicated in many research studies.

## 1.2 Research problem statement

The pressure on Higher Education to produce employment-ready, professional, and flexible graduates is increasing as various stakeholders, including employers and the government, make more calls (Errington, 2010). There are diverse views in the literature on what may have caused employers and other stakeholders to pay added attention to non-technical (pervasive) skills in addition to technical skills (Cheruvilil et al., 2014; Winterton and Turner, 2019; Yates, 2015). Some believe the added calls result from the fact that the job market requires graduates who are employable and able to add immediate value using technical knowledge and non-technical skills (Jackson and Chapman, 2012). A different view suggests that employers' demand for non-technical skills is attributable to three factors: changes in practices in the business sector, job role changes, and changes in people's attitudes about the role of higher education (Howieson, 2003).

In the accounting profession, employers and professional bodies have also expressed the need for accounting graduates to be employment-ready and stipulate that graduates should have both core discipline-specific competencies and pervasive skills (De Villiers, 2010; Helliari, 2013). Despite all the calls, concerns about the lack of work-readiness and poor pervasive skills of accounting graduates are still frequently expressed in research studies (Cord et al., 2010; Hesketh, 2011; Low et al., 2008; Mathabathe, 2006; Wye and Lim, 2009).

According to current research, prospective employers of accounting graduates think that early graduates are still "not job-ready," implying that a gap exists (Bayunitri, 2014; Caballero et al., 2011; Moore and Morton, 2017; Prikshat et al., 2016; Van Romburgh and Van der Merwe, 2015). It appears that employers favour skilled graduates with a wide range of skills who are

ready to contribute to the workplace (Aman and Sitotaw, 2014; Seetha, 2014; Singh et al., 2013). Sithole (2015) attributes the demand by employers for accounting graduates with strong pervasive skills to the changing nature of the graduate labour market, which necessitates a continuous review of the skills and knowledge accounting graduates possess.

Indeed, the higher education institution's output must match the specific requirements for accounting professionals in the labour market (Diokno and Pephrah, 2021). According to several local and international studies, a mismatch between students' and employers' expectations contributes to graduates' poor performance in entry-level roles and the professional workplace in general. However, it remains unclear why the accounting profession has placed such a high value on pervasive skills in recent years.

With such emphasis on pervasive skills in the accounting profession lately, it would seem crucial for those still on the path toward qualifying as chartered accountants to obtain an understanding of the critical skills for entry-level employment. Not doing so would result in a mismatch of skills, resulting in unsatisfied employers and, more than likely, a detrimental impact on accounting graduates' employment prospects. Indeed it has been argued that one of the causes of graduate unemployment is a mismatch between the skills employers demand of graduates and those that students develop during their academic years (Mathabathe, 2006). Obtaining such an understanding is beneficial, especially to accounting students still in the academic programme because it is also likely that not all pervasive skills are essential for entry-level accounting employment, as some may be necessary for supervisory or management positions. Pervasive skills necessary for more senior roles may be concentrated on later, during professional training or at work.

Tempone and Martin (2003) revealed that there is a lack of clarity regarding which skills are necessary for a newly graduated accountant entering the workplace. Provided that, understanding which pervasive skills are regarded as necessary for a career in accounting from the perspectives of all key stakeholders is critical, even though some may argue that how individual skills are perceived may be subjective (Ong, 2013). Barac (2009) sought the opinions of training officers in South Africa on the pervasive skills they believe are essential in the accounting profession whereas Awayiga et al. (2010) sought the perspectives of employers and accounting graduates in Africa. Additionally, a study by Barac, Kunz, and

Kirstein (2020) also sought to investigate the pervasive skills necessary for future entry-level accountants from the perspectives of 3 000 professional accountants and/or auditors from the southern African region (South Africa, Zimbabwe, and Namibia). The findings of that study showed that future registered auditors were considered to require digital, practice, and commercial acumens the most, while entry-level chartered accountants required skills in decision-making, organisation, and business acumen. Considering that, there appears to be limited research on which of these skills are perceived to be important for entry-level accountants by accounting students and academics on the African continent, particularly in South Africa. Of course, all pervasive skills are desirable; however, focusing on all pervasive skills during the academic programme may be challenging.

Another critical issue is how to support accounting students to develop the necessary pervasive skills before they enter the workplace. With this in mind, universities offering SAICA accredited accounting programmes have designed and implemented various interventions, designed to support the development of these skills. These interventions include the use of teaching strategies and methods believed to support the development of pervasive skills (Malan and Dyk, 2021; Keevy, 2015; Viviers, 2016; Strauss-Keevy, 2012). However, other studies reveal contradictory findings. For instance, a study by De Villiers and Viviers (2018) revealed that current teaching strategies used by lecturers in local universities to impart pervasive skills to accounting students are not greatly aiding this cohort's development of pervasive skills: ethical behaviour and professionalism, personal attributes, and professional skills. That study by De Villiers and Viviers (2018) was based on the views of accounting students themselves, obtained quantitatively.

A local study by Lansdell, Mohammadali-Haji and Marx (2020a), this time based on the opinions of entry-level chartered accountants (CAs [SA]), looked into how the skills that are believed to be needed for Industry 4.0, such as organisational, interpersonal, and intellectual skills, develop during a university accounting degree. The findings showed that the accounting programme was thought to have enhanced the soft skills of entry-level CAs (SA), including their capacity for complex problem solving, critical thinking, people management, teamwork, application of judgement and decision-making, service orientation, effective negotiation, and cognitive flexibility. However, the academic programme was shown to have not fully developed their emotional intelligence or creative thinking.

Keevy's (2020) study, also local, took it a step further and analyzed the perceptions of aspirant chartered accountants who had finished their academic programme and were completing their training programme to determine how each subject in the academic programme contributes to the development of pervasive skills. That study's findings revealed that pervasive skills were most prevalent in the subject of strategy, particularly, personal attributes. Auditing as a subject was believed to have contributed the highest in terms of professionalism and ethical behaviour, whereas Accounting had the highest contribution in terms of professional skills. Taxation was perceived to have contributed the least to pervasive skills development. Despite multiple interventions put in place by the academic programmes to support the development of pervasive skills by accounting students, it remains unclear why some accounting students fail to develop these skills before entering the professional work environment.

All these interventions, including research and the use of teaching methods designed to support the development of the necessary pervasive skills, are put in place despite the roles of the academic and training programmes on pervasive skills development being widely debated. Whilst some scholars argue that these skills are better developed in the workplace (training programme), others argue that the academic programme has a significant role to play in this regard. Other local studies have been conducted to ascertain the impact of the training programme on the development of pervasive skills. For instance, a study by Lansdell, Marx, and Mohammadali-Haji (2020b) examined whether the type and size of the training firm have an impact on the development of professional skills as well as the professional skills that entry-level CA(SA)s perceive to have developed during a period of practical experience. The findings of the study showed that practical experience is thought to be useful in honing professional skills by entry-level chartered accountants. The study also found that the industry in which practical experience is gained, as well as the relationships between these two factors, have a greater impact on the development of professional skills than does the firm's size.

Given the issues highlighted above, it seems that graduating an accounting student with an outstanding academic record, who is work-ready and who possesses a balanced set of technical and pervasive skills, is ideal for many universities offering SAICA accredited accounting programmes. However, there is still much room for improvement in this regard. This is because there is also much concern about the academic performance of accounting students (Ali et al.,

2013; Jama et al., 2008; Jayanthi et al., 2014). In as much as research studies have been conducted on factors or variables that affect the academic performance of accounting students (Kalbers and Weinstein, 1999; Nayebzadeh et al., 2013; Özpeynirci et al., 2013); no known local study has investigated the possible association between pervasive skills and the academic performance of accounting students who are about to complete their academic programme and gain entry into the training programme. Furthermore, given that some studies have suggested a link between soft skills and work readiness (Teng, Ma, Pahlevansharif and Turner, 2019; Masole and Van Dyk, 2016; Hagar, 2006), no local study has been conducted to investigate the relationship between pervasive skills levels of soon-to-graduate accounting students and their work-readiness levels.

### 1.3 Research aims and objectives

#### 1.3.1 Aims of the study

The study aimed to qualitatively explore the factors that have resulted in pervasive skills coming to the fore in the accounting profession and to explore the factors that enable/hinder the development of these skills from the perspectives of two stakeholders in accounting; the aspirant accountants (accounting students) and the academic programme, through accounting academics. In addition, it sought to quantitatively identify the pervasive skills perceived as necessary for entry-level professional employment by accounting students and academics. Lastly, the study sought to establish whether a relationship existed between pervasive skills levels of accounting students and their work readiness and academic performance in the academic programme.

#### 1.3.2 Objectives of the study

The objectives of the study were:

- To obtain the perceptions of accounting academics and students (who aspire to be chartered accountants, hereafter referred to as accounting students) about the factors that have resulted in pervasive skills coming to the fore in the accounting profession.
- To identify the selected pervasive skills that accounting students and academics perceive as important for entry-level employment in the accounting profession.
- To explore the perceptions of accounting students and academics about the factors that enable or hinder the development of pervasive skills by accounting students.

- To investigate whether a relationship exists between selected pervasive skills levels of accounting students and their work readiness.
- To investigate whether a relationship exists between the selected pervasive skills levels of accounting students and their academic performance.

#### 1.4 Research questions

1. What are the perceptions of accounting academics and students (who aspire to be chartered accountants) about the factors that have resulted in pervasive skills coming to the fore in the accounting profession?
2. Which of the selected pervasive skills do accounting students and academics perceive as important for entry-level employment in the accounting profession?
3. What are the perceptions of accounting students and academics about the factors that enable or hinder the development of pervasive skills by accounting students?
4. How are levels of accounting students' selected pervasive skills related to their work readiness?
5. How are levels of accounting students' selected pervasive skills related to their academic performance?

#### 1.5 Rationale for the study

According to Bui and Porter (2010), the gap between the skills anticipated of accounting graduates by employers and the skills possessed or demonstrated by accounting students is widening. For years, employers have been requesting pervasive skills such as communication skills and critical thinking, among others, from their accounting recruits. However, current research studies show that prospective employers of accounting graduates believe that graduates are still entering the job market "not job-ready," implying that a gap exists (Caballero et al., 2011; Moore and Morton, 2017; Van Romburgh and Van der Merwe, 2015). To some, this may highlight the deficiency in the academic programme.

One of the aspects that sparked interest in this area of study was the amount of criticism that the academic accounting programme has received in the literature regarding the dissatisfaction expressed by various stakeholders, particularly employers, about accounting graduates' lack of pervasive skills. The study was also inspired by a dearth of research addressing why there has been a rise in demand for pervasive skills in the accounting profession and why certain

accounting students are still unable to develop the requisite skills as expected, particularly in the South African context.

### 1.6 Significance and contribution of the study

To appropriately prepare students for the accounting profession, particularly in terms of pervasive skills, it seems vital to understand the numerous skill sets explicitly and tacitly expected of new trainee accountants. Also, it is essential to understand the perceived importance of these skills from the standpoint of those directly involved, the accounting students soon to be trainee accountants and the academics involved in the academic programme that prepares them for the traineeship.

While it is critical to establish the skills required for accountancy students to obtain entry-level employment, it is equally crucial to understand the factors that impede or assist students in acquiring these skills. Furthermore, it would seem essential to identify the constraints/hindrances that limit the development of pervasive skills during the academic programme and, from the same standpoint, to make reasonable efforts to eliminate or limit their effects.

Given the fact that several research studies have eluded to the importance of pervasive skills and attributes in the accounting profession, it would seem that accounting students who will be entering the professional workplace shortly need to prioritize the acquisition of the skills in addition to coping with the academic programme's heavy workload. Knowing which skills are relevant in the knowledge economy is crucial (Schurman and Soares, 2010). Knowing why pervasive skills have become prominent in the accounting profession and which specific skills are perceived as critical for gaining employment and maintaining a successful accounting career is also critical.

In an attempt to get the students to prioritize pervasive skills and for them to see the benefits of prioritizing pervasive skills and attributes, as they would technical skills, an understanding of the need for pervasive skills as well as the factors that have led to these skills coming to the fore in the current accounting profession was deemed crucial. Also, building on the idea that some pervasive skills have been identified as factors that have an association with the work readiness and academic performance of university students in general (Mahmud, 2014; Masole and van Dyk, 2016; Teng et al., 2019), determining whether the selected pervasive skills have

a relationship with the work readiness levels and academic performance of accounting students who aspire to be chartered accountants in the South African context was deemed necessary.

The study's importance is determined by its potential impact on essential stakeholders in the accounting profession in the local context. One of the key aims of this study was to understand better the circumstances that have led to pervasive skills being more prominent in the accounting profession and the factors that influence the development of pervasive skills by accounting students. Furthermore, there was much concern about the pervasive abilities seen as crucial for those entering the professional work environment and for overall career success in the field. Finally, knowledge of the relationship between pervasive skills, work readiness, and academic performance was deemed critical.

Overall, this research can be justified for a variety of reasons. To begin with, substantial research into the value of pervasive skills has been conducted in developed nations, but these studies do not particularly address the South African situation. As a result, there is a void that this study aims to fill. Its original value comes from that and the fact that it used a mixed-methods approach to holistically address the issue of pervasive skills. As a result, this research study is expected to be of great value and interest to numerous accounting stakeholders and other scholars, and it may provide a foundation for future research.

### 1.7 The design and methodological context of the study

Pragmatism is the philosophical foundation for this research study. This paradigm recognises that qualitative and quantitative methods are compatible and that the value of the two methods is similar, allowing for their use in a single study (Maree, 2007).

This study followed a non-experimental research design following a mixed-methods approach. The mixed-methods approach was deemed suitable given the study's aims and the type of research questions the study sought to address. The mixed-methods design can address various research problems and gain a deeper understanding of trends and patterns. It can be used to develop or test theories and investigate other perspectives (Maree, 2007). The study was both exploratory and descriptive in nature. The qualitative part of the research was exploratory, and the quantitative part was descriptive.

This research was carried out in KwaZulu-Natal (KZN), at the University of KwaZulu-Natal (UKZN), one of the province's four major public higher education institutions. This university was chosen for this study because it offers a full-time, contact-based Bachelor of Commerce in Accounting degree, which SAICA accredits. This university also has students from various socioeconomic backgrounds and from many ethnic groups and educational systems.

In this study, there were two groups of participants (populations). The first group of participants was made up of students enrolled in a professional accounting degree programme, the Bachelor of Commerce: Accounting (BCOA) at UKZN, who were in their third (last) year of undergraduate study in Semester 1 of 2019. The reason for selecting third-year accounting students for this study is that by their third year of study, they should have a good understanding of the accounting profession they wish to pursue. At this level of study, accounting students are expected to have a reasonable understanding of the pervasive skills necessary for a career in accounting and to be almost work-ready.

Within this first group of participants, some students following a census approach participated in the survey, while some who were purposively sampled participated in focus group discussions. A dated definition of 'census' was adopted in this study. A census is defined as "the total process of collecting, compiling and publishing demographic, economic and social data pertaining, at a specified time or times, to all persons in a country or delimited territory" (United Nations Statistical Office, 1958:3). On the other hand, according to Fox and Bayat (2007), purposive sampling is one of the non-probability sampling types where the researcher uses their insight and experience in the research area to intentionally obtain units of analysis so that the sample is regarded as representative of the population under study.

Academics teaching in the same academic programme comprised the second group of participants. A census approach was applied with regard to accounting academics who participated in the survey. However, accounting academics who participated in individual semi-structured interviews were selected using purposive sampling. Accounting academics were selected based on their work experience. The goal was to choose academics who have taught for at least two years in the accounting degree programme and have professional accounting experience.

In this study, quantitative data was collected first, followed by qualitative data. The two strands (quantitative and qualitative) were kept separate. No interactions between the two took place, hence an independent level of interaction of the strands. Also, both strands received equal

priority, given that the two strands had an essential role in addressing the different research questions.

In collecting quantitative data, the study applied the survey design approach using a cross-sectional survey design. A cross-sectional survey is a one-time gathering of data used to create an overall picture of a phenomenon at a certain point in time (du Plooy-Cilliers et al., 2014). Quantitative data was collected from accounting students and academics using questionnaires.

On the other hand, qualitative data was collected through focus group interviews with accounting students and individual semi-structured interviews with accounting academics.

## **Data analysis**

### ***Quantitative data analysis***

All data collected to address quantitative research questions was analysed using SPSS Statistics 25, a widely used software program for analyzing quantitative data, was utilized to process and analyze the survey data from accounting students and academics

Descriptive and inferential statistics were computed on all quantitative data collected. The research objectives for which quantitative data was collected were:

*Research objective Two* which sought to identify the selected pervasive skills that accounting students and academics perceive as important for entry-level employment in the accounting profession.

*Research objective Four* which sought to investigate whether a relationship exists between selected pervasive skills levels of accounting students and their work readiness and lastly,

*Research objective Five* which sought to investigate whether a relationship exists between selected pervasive skills levels of accounting students and their work readiness.

### ***Qualitative data analysis***

All qualitative data collected (to address the first and the third research objectives) were thematically analysed using NVivo, a qualitative research tool used for analysing unstructured data. All responses received from research participants were initially coded and then arranged in themes that were reviewed later before the write-up as per the six-step process suggested by

Braun and Clarke (2006). The various themes that emerged from the data to address each of the research objectives (one and three) were then linked to their respective theoretical frameworks, as discussed below:

#### *Research objective One*

This research objective intended to determine the factors that have taken place in the accounting field that have resulted in stakeholders calling for the prioritisation of pervasive skills and attributes. Data collected to answer this research question was collected and analysed qualitatively. The Human Capital Theory was adopted to analyse data collected to address this research objective and the presentation of the themes followed Samagaio and Rodrigues's (2016) Model.

#### *Research objective Three*

The third research objective, which sought to explore the factors that promote/hinder the development of pervasive skills by accounting students, adopted Bronfenbrenner's Bioecological Theory in thematic analysis.

On the next page, a summary data corpus is presented in Table 1.1. A comprehensive description of the research design and methodology adopted in this study is provided in Chapter Two.

## 1.8 Summary data corpus

The following table, Table 1.1, provides a summary of the research objectives (RO), data collection approaches, data analysis, and participants.

**Table 1.1: Summary data corpus**

<b>RO No.</b>	<b>Research objective</b>	<b>Approach</b>	<b>Data collection tool</b>	<b>Data analysis method</b>	<b>Research participants</b>
1	To obtain the perceptions of accounting academics and students who aspire to be chartered accountants about the factors that have resulted in pervasive skills coming to the fore in the accounting profession.	Qualitative	Focus group discussions (students) and semi-structured interviews (academics)	Thematic analysis  Theoretical framework: Human Capital Theory	Accounting students and academics
2	To identify the pervasive skills that accounting students and academics perceive as important for securing entry-level employment in the accounting profession.	Quantitative	Survey questionnaire -	Descriptive and inferential statistics (t-tests)	Accounting students and academics
3	To explore the perceptions of accounting students and academics about the factors that enable or hinder the development of pervasive skills by aspirant accountants.	Qualitative	Focus group discussions (students) and semi-structured interviews (academics)	Thematic analysis  Theoretical framework: Bioecological Theory	Accounting students and academics
4	To investigate whether a relationship exists between pervasive skills levels of aspirant accountants and their work readiness.	Quantitative	Survey questionnaire -	Descriptive and inferential statistics (Correlation and regression analysis)	Accounting students
5	To investigate whether a relationship exists between the pervasive skills levels of aspirant accountants and their academic performance.	Quantitative	Survey-questionnaire	Descriptive and inferential statistics (Correlation and regression analysis)	Accounting students

## 1.9 Structure of the thesis

The thesis is made up of eight chapters that are structured as follows:

Chapter One provides an introduction and background to the study.

Chapter Two focuses on the research methodology adopted to conduct the study.

Chapter Three focuses on the first research question: Theoretical framework, literature review, presentation, and findings discussion.

Chapter Four focuses on the second research question: Literature review, presentation, and interpretation of findings, followed by a discussion of findings.

Chapter Five centers around the third research question: Theoretical framework, literature review, presentation, and a discussion of findings.

Chapter Six focuses on the fourth research question: Literature review, presentation, and interpretation of findings, followed by a discussion of findings.

Chapter Seven focuses on the fifth research question: Literature review, presentation, and interpretation of findings, followed by a discussion of findings.

Lastly, Chapter Eight provides a summary and conclusion of the thesis and highlights the limitations and recommendations of the study.

## 1.10 Chapter summary

This chapter provides a synopsis of this research study. It presented the introduction, the purpose of the study, and the problem statement. This chapter also focused on the rationale and significance of the study. Furthermore, this chapter provided a brief account of the design of the study, the methodology, the aims of the research, and the critical research questions. Lastly, the structure of the thesis was outlined.

## CHAPTER TWO

### METHODOLOGY

#### 2.1 Introduction

The previous chapter – The introduction provided the background to the study, outlining the research problem, focus, and rationale of the study. Also, it focused on the significance of the study, the objectives of the research study, and the critical research questions. This chapter discusses the research design, approaches, and strategies underpinning this study. Additionally, it describes and justifies the research methodologies adopted in collecting and analyzing data, selecting participants, and selecting data generation instruments. According to Babbie and Mouton (2006), the study process, the many tools that will be employed, data collecting or sampling, and the most objective procedures to be used during the research study to obtain the necessary information are all covered under the research methodology.

#### 2.2 Research objectives of the study

- To obtain the perceptions of accounting academics and students (who aspire to be chartered accountants, hereafter referred to as accounting students) about the factors that have resulted in pervasive skills coming to the fore in the accounting profession.
- To identify the selected pervasive skills that accounting students and academics perceive as important for entry-level employment in the accounting profession.
- To explore the perceptions of accounting students and academics about the factors that enable or hinder the development of pervasive skills by accounting students.
- To investigate whether a relationship exists between selected pervasive skills levels of accounting students and their work readiness.
- To investigate whether a relationship exists between the selected pervasive skills levels of accounting students and their academic performance.

The research design and methodology, which ensured that the information gathered is consistent with the identified research objectives and questions, are explained in the next section.

## 2.3 Research design and methodology

### 2.3.1 Research design

The importance of having a research design as a plan to use in conducting scientific research is critical. Huysamen (1994) describes a research design as the plan or blueprint according to which data are collected to investigate the research hypothesis or question in the most economical manner. It may also be thought of as a blueprint that a researcher follows when conducting a study to ensure that research questions are answered with the highest level of validity, impartiality, precision, and economy (Kumar, 2019). Given that, it is thus apparent that careful consideration is required in selecting an appropriate research design. Cooper et al. (2012) agree and further caution that in the absence of an appropriate research design, the risk is that evidence gathered may not address the research questions initially asked.

Many research designs may be selected when undertaking a scientific research study, for example, experimental and non-experimental designs. Essentially, an experimental design determines whether a particular treatment has an effect on a particular outcome (Creswell, 2014). True experimental designs, quasi-experimental designs, applied behavioural designs, and single-subject experimental designs are all examples of experimental designs. Non-experimental designs, on the contrary, do not manipulate variables and do not contain experimental or control groups (De Vos et al., 2011). Causal-comparative approaches, correlation, and survey research are examples of non-experimental designs. The researcher did not attempt to examine a causal relationship between the variables in this research study, particularly in the quantitative components of the study, which justified the use of a non-experimental research design. Furthermore, no attempt was made to control or exert control over the phenomenon being researched in this study.

This study adopted a case study-based non-experimental research design to answer the research questions. The critical components in a case-study research design are, according to Yin (1994):

1. A study's questions
2. Its propositions, if any
3. Its unit (s) of analysis
4. The logic linking the data to the propositions; and
5. The criteria for interpreting the findings

### 2.3.2 Case study design

When comprehensive, in-depth research is necessary, a case study methodology is the best choice (Baxter and Jack, 2008: 556). According to Yin (2009:18), a case study research method is:

An empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident.

According to Cohen, Manion and Morrison (2011), a case study design can examine the characteristics of a person, phenomenon, or group in a particular setting through the analysis of relationships, occurrences, and trends, to obtain concrete results from a social perspective. Given that it considers numerous perspectives, a case study design permits the researcher to use detailed descriptions (Babbie and Mouton, 2006). Significantly, Yin (2012:5) underlines that case study research is carried out in realistic, natural settings.

The case study design is appropriate for qualitative and mixed methods investigations since it can aid in identifying key issues, concepts, trends, and patterns that can be further investigated. Indeed, it is crucial for expanding the body of knowledge on a topic because they provide the framework for future research (Merriam, 2009). Equally important, a case study may employ a variety of data collection techniques, some of which may be used in conjunction with one another.

The use of the case study design in research has numerous advantages. By stating, "Case studies allow new ideas and hypotheses to emerge from careful and detailed observation, which becomes the foundation of many notable theories in education and social sciences research," Blanche et al. (2014: 461) highlight one of the benefits and value connected with the use of a case study design. Finding information we did not expect to find at the outset is also one of the benefits of thoroughly examining a case. This factor makes a case study research a particularly successful method for creating hypotheses (Yin, 2012).

A case study design enabled the researcher to gain insight into the perceptions, choices, and judgments of research participants. Additionally, the case study design gave the researcher, a novice researcher, the platform to obtain an in-depth understanding of the complex factors that affect the need for and role of pervasive skills in the academic and professional preparation of aspiring accountants (accounting students) as well as how these aspiring accountants develop and place value on the selected pervasive skills. Furthermore, case studies, according to Yin

(2012), may be used in explanatory, exploratory, and descriptive studies; therefore, the choice of using a case study design in this research was justified, given that the present study was both descriptive and exploratory in nature.

Although adopting a case study design is appropriate, scholars have debated its validity considerably. For one, case study research has been criticized for, among other things, having low external validity (Quintão, Andrade, and Almeida, 2020). Coupled with that, because in some cases, the researcher assumes an interactive role rather than operating at a distance, it is frequently questioned if the researcher is independent of the case study's findings (Garger, 2010). While those may be valid concerns, Yin (2012) points out that case study research is more involved than simply focusing on one person or situation, and it has the potential to address both simple and complex issues.

### 2.3.3 Research approach

The study adopted a mixed methods approach; this approach best suited the aim of the study and better addressed the research problem. Creswell (2011) defines mixed methods design as those that contain at least one quantitative approach (intended to collect numbers) and one qualitative way (designed to gather words), in which neither type of method is essentially related to any specific research paradigm. The mixed-methods design helps address different research problems and helps obtain an in-depth understanding of trends and patterns. Additionally, it may be utilised to generate or test theories and may be applied in researching diverse perspectives (Maree, 2007). Chiefly, mixed methods research is especially suitable in addressing research problems where: one data source is inadequate, where results need to be explained, exploratory research results have to be generalised, a second method is essential to supplement the primary method, and a theoretical perspective is required, and a complete research objective can be better addressed through several stages or projects (Creswell and Clark, 2011).

The use of mixed methods broadens the dimensions and scope of the research project and may provide better perspectives to understanding the research problem (Tashakkori and Teddlie, 2010); it also provides breadth and depth of understanding corroboration (Creswell and Clark, 2011). Essentially mixed methods studies combine qualitative and quantitative research methods in one study. Fixed mixed methods, as opposed to emergent mixed methods, were

adopted in the research study as the decision to use both quantitative and qualitative methods was decided on at the inception of the research project.

According to Muijs (2010), qualitative approaches are most suited to examining the meaning of specific events or circumstances. According to Creswell and Poth (2016), the initial author's purpose is "meaning." Quantitative methods, on the other hand, combine experimental and non-experimental approaches.

All of the collected quantitative data was aimed at addressing specific quantitative questions. Likewise, qualitative data was used to answer specific qualitative research questions. The two strands (quantitative and qualitative) were kept separate; no interactions between the two took place, hence an independent level of interaction of the strands. Creswell and Clark (2011) state that an independent level of interaction takes place when the two strands are kept separate and the researcher keeps quantitative and qualitative questions, collection, and the analysis of data separately and only mixes the two during the overall interpretation of the research results which occurs towards the end of the study. Likely, Maree (2007) argues that the integration of qualitative and quantitative methods may occur at the data collection and analysis stages of the research, depending on the research's purpose, design, and strategies. Integration refers to a point where qualitative and quantitative research meet at a given level of inquiry (Tashakkori and Teddie, 2003). As previously eluded, in this study, the two strands were only integrated during the overall interpretation of results.

Another critical point to mention is that in this research study, both the qualitative and quantitative strands received equal priority suggesting that these had an equal role in addressing the problem identified by the research. In terms of timing of the strands, a sequential timing was adopted, as quantitative data was collected first, followed by qualitative data. The decision to collect quantitative data first was based on logistical considerations, as the semester was coming to a close and student lecture attendance was still relatively high. As a result, quantitative data was collected first to enhance survey response rates.

## 2.4 Philosophical foundation

People have different ideas about what research is and how it connects to the produced type of knowledge. Because of that, research paradigms serve as a guide for making decisions and doing research. Postpositivism, constructivism, transformivism, and pragmatism are the four world views that Creswell (2014) identifies and explains. He contends that the post-positivist

paradigm includes determination, reductionism, empirical observation, and theory verification and that post-positivists consider that reality cannot ever be totally known, only generally. He frames constructivism as a viewpoint that combines understanding, varied engagement interpretations, social and historical construction, and theory formation, implying that people construct their own truths. This view suggests that there are many different understandings.

On the other hand, he argues that a transformative paradigm is focused on politics, power, and justice, as well as collaboration and change. With that in mind, it would seem that the transformative paradigm suggests that research must be integrated with politics and the political change agenda to challenge societal domination at any level. Finally, pragmatism is explained as a problem-centred, pluralistic, and practice-oriented viewpoint that considers the consequences of actions in the real world (*ibid*).

The pragmatism paradigm served as the philosophical underpinning for this research study. To elaborate, beliefs, knowledge, and understanding constantly change under this philosophical paradigm; they are neither certain nor static (Plowright, 2011). Under this pragmatic foundation, research questions are more important than the methods applied in answering them. It is founded on the premise that qualitative and quantitative methods are compatible, that their worth is comparable, and that they may be used in the same study (Maree, 2007), and it provides a practical and applied research philosophy (Tashakkori and Teddlie, 2010). Furthermore, pragmatism claims that assertions or views about the world do not count as knowledge if they do not result in outcomes or actions that help us make suitable judgments, act wisely, or complete tasks productively (Plowright, 2011).

## 2.5 The nature of the study

The study was exploratory and descriptive in nature, which was facilitated by using a mixed-methods approach. Exploratory research is appropriate in cases where there is limited knowledge and experience in a particular research area. It aims to understand the research problem or provide an orientation to the researcher to an area of research that is lesser-known (Manerikar and Manerikar, 2014). On the other hand, descriptive methods describe behaviours but do not explain cause-and-effect in terms of the relationships under study. Several descriptive methods may be applied when undertaking research. These methods include observational, case study, and survey methods (Jackson, 2014b). According to Fox and Bayat (2008), descriptive research is useful when the goal is to shed light on present challenges or

problems using a data collection procedure that allows researchers to explain the situation more fully than could be done otherwise.

For this study, a case study was used. Within the case study, UKZN, a survey design was adopted to collect quantitative data. Focus group discussions and semi-structured interviews were undertaken to collect qualitative data.

## 2.6 The research site/ location of the study

This study was conducted in KwaZulu-Natal (KZN), a coastal province in the South East of South Africa with an estimated population of 11 074 884, most of whom range from 14 – 24 of age (Stats SA, 2017). There are four contact public universities in KwaZulu-Natal; the University of KwaZulu-Natal, the University of Zululand, Durban University of Technology, the Mangosuthu University of Technology, and the University of South Africa (UNISA), which offers distance learning academic programmes, operates in Durban in one of their regional offices. There are also private Higher Education institutions in KZN, one of which is Varsity College, which also offers the South African Institute of Chartered Accountants (SAICA) - accredited accounting degrees.

One of the four contact universities in KwaZulu-Natal was selected as a case study in this research project. The selected university is divided into different campuses, two of which were sites where the study was located. Both campuses are located in two densely populated cities in KwaZulu-Natal. This university has a high standard curriculum, infrastructural resources, and a rich history dating back many years. It offers various sporting, cultural and extra-curricular facilities for educational and recreational use to staff and students. These facilities are well-maintained and regularly serviced. The university has an average enrolment of 10 000 students per year. It caters to students of different genders from different socio-economic and cultural backgrounds, most of which are from previously disadvantaged backgrounds and products of different schooling systems (public and private). The university uses both contact and online teaching platforms to deliver accounting and other curricula for undergraduate and postgraduate students who are enrolled full-time and part-time.

This university is rich in diversity, as students are from different cultural, racial, and ethnic backgrounds. Although the isiZulu language and culture dominate in the KwaZulu-Natal province, the university has many students of Indian, English, and Mixed-race origins

(Coloured). Adults are recognised as authority figures in the dominant culture, emphasizing obedience, respect, and Ubuntu. Although all other cultures share similar values and practices, the Indian culture seems to share one other similarity: cultural and traditional practices and norms.

Given that the study aimed to focus on aspirant chartered accountants in the final year of a professional degree in Accounting, the university selected for the study had to offer a SAICA accredited accounting degree programme. The SAICA, aiming to promote and maintain quality in the accounting profession in South Africa, accredits academic accounting programmes that meet the required quality standards. This professional body serves as an Education and Training Quality Assurer (ETQA) and is recognised by the Independent Regulatory Board for Auditors (IRBA). Only accounting graduates with SAICA accredited accounting qualifications are permitted access to undertake the Initial Test of Competence (Mitchell et al., 2010). Examinations and these are compulsory for those accounting graduates intending to qualify as Chartered Accountants or CA (SA)s (SAICA, 2019). The selection of this university, thus, was based on the fact that it offers a SAICA-accredited Bachelor of Commerce in Accounting degree (professional degree) on a full-time, contact basis.

## 2.7 Research participants

There were two categories of participants in this study. The first category of participants comprised students registered for a professional accounting degree, Bachelor of Commerce: Accounting (BCOA), who were currently registered at a final level of study in Semester 2 of 2019. According to Babbie and Mouton (2006), a population is a group (typically people) about which the researcher intends to make conclusions. In this study, the total population was 309 students. The second category of participants were academics (lecturers) teaching in the Bachelor of Commerce: Accounting degree programme from the Department of Accounting. The total population of academics in the Department of Accounting was determined to be 26 at the data collection date. The rationale for selecting final-year accounting undergraduate students is that at a third-year level, they are expected to have developed most of the pervasive skills under study and have some idea about which of those skills ought to affect their work readiness positively. Also, at a final-year level, students are expected better to understand the accounting degree curriculum and its demands and be almost work-ready at this level.

## 2.8 Sampling methodology

It may be challenging to research all members of a population at times; consequently, a sample of the population must be drawn from which data can be collected and studied. Specifically, a sample should be large enough to offer reliable statistics that can be generalized to the entire population with a low level of error and high precision and confidence (Sekaran and Bougie, 2003; Sekaran and Bougie, 2016). This process entails selecting a sufficient number of the correct elements from the population so that a study of the sample makes it possible for one to generalize to the population elements, including those not selected in the sample (Sekaran and Bougie, 2016). Precision refers to how near the sample estimates are to the population, whereas confidence refers to how confident a researcher is that the sample estimates accurately reflect the population status (Sekaran and Bougie, 2003). Two sampling frames were determined for this study. The two sampling frames, one for accounting students and the other for accounting academics, were determined with the assistance of the School office in the School of Accounting, Economics, and Finance. A total number and list of all final-year BCOA students and lecturers in the academic programme were determined before any sampling took place.

### **The first category of participants:**

#### **a) Students: Survey participants**

A census approach was followed to invite accounting students to participate in the survey. The decision to use a census approach was informed by the goal of increasing participation given the population size. When the population is small, and the researcher has access to and can gather data from every responder within that population, a census approach may be used. At the same time, this kind of research takes time, money, and effort. Because of the resources needed, this approach becomes challenging to apply when the field of research is broad.

In this study, all potential participants were made aware that their participation was entirely voluntary, that they were not obligated to do so, and that they had the right to withdraw from it at any moment, without consequences.

## **b) Students: Focus group participants**

### **Focus group**

Focus group participants were purposively sampled. Purposive sampling involves sampling with a purpose in mind; reaching and getting the opinions of the targeted participants is easier as participants are carefully selected. According to Fox and Bayat (2007), purposive sampling is one of the non-probability sampling types where a researcher uses their own experience, ingenuity, and previous research experience and findings to deliberately obtain units of analysis in such a way that the sample to be obtained may be regarded as being representative of the relevant population. Non-probability sampling is based on the principle that the selection of research participants is not random, but a particular criterion is used to select them (Denscombe, 2003).

All students were requested to complete a short information sheet aimed at collecting their demographic data, which aided the researcher in selecting participants. Purposive sampling resulted in a mix of academic and demographic profiles. The objective was to obtain a heterogeneous focus discussion group sample composed of students from different ethnic groups, socioeconomic backgrounds, and different schooling systems. Although it was anticipated that sixteen participants (two groups) would participate in the discussions, in the end, two focus group discussions were held, each with six participants.

## **The second category of participants: Academics**

### **a) Academics who participated in interviews**

Purposive sampling was used to select accounting academics teaching in the Bachelor of Commerce: Accounting degree (BCOA) programme for participation in semi-structured interviews. The academics were currently employed by the case-study university and were located in one of two campuses offering the professional accounting degree. Before data collection started, the researcher sent and communicated requests to prospective participants. When ethical clearance was granted, interview dates were secured and set up, all of which were at the convenience of the participants. The participants preferred the interviews to be conducted from their offices at work. The plan seemed to work with most participants, except for a few who had to re-schedule their interviews because of commitments not known to them when the dates were decided upon. As a result, reminders were sent to participants that had to re-schedule

because of busy schedules. The selected academics were individually interviewed using a semi-structured interview schedule. The sample size of this category of participants was not fixed; the resource availability and theoretical saturation guided the data collection. In the end, nine semi-structured interviews with accounting academics were conducted. The interviews were initially scheduled to be 30 minutes long; however, some took longer, with the longest taking 49.57 minutes and the shortest taking 18.56 minutes.

#### **b) Academics: Academics who participated in the survey**

A census approach was followed with academic participants for the survey. It was regarded as both practicable and possible to target the entire population because there were just twenty-six (26) academics in the group, and they were all easily accessible and well defined. However, this group of participants received just 21 questionnaires. This was because it was impossible to give the questionnaires to all academics in the accounting discipline on the days the questionnaires were distributed because of their academic commitments and responsibilities. As in the case of accounting students, all potential participants in this population were made aware that their participation in the study was entirely optional, that they were under no obligation to do so, and that they had the right to withdraw from it at any moment, without prejudice.

## **2.9 Data collection**

In this study, quantitative data was collected first via a survey using questionnaires that were administered to accounting students (aspirant chartered accountants) and academics. Qualitative data, collected through focus group discussions with the accounting students and semi-structured interviews with accounting academics, most of whom were also qualified Chartered Accountants, then followed.

### **2.9.1 Quantitative data**

#### *2.9.1.1 Survey design*

The study applied the survey design approach to collect quantitative data. By investigating a population sample, survey research provides quantitative or numeric descriptions of the population's trends, attitudes, or opinions (Creswell, 2014). Surveys may be used to obtain

information regarding peoples' attitudes, decisions, images, and behaviours and collect demographic information (Alreck, 2004). Since a survey entails gathering information from many people who respond to several questions, these questions may also aspire to understand the participants' facts, beliefs, preferences, and views (De Vos et al., 2011). According to Babbie and Mouton (2006), surveys are most commonly utilized in research where individuals are the units of analysis. The advantages of using a survey include the ability for the researcher to obtain a large amount of data from a single participant at one time and the ability to conduct surveys in a variety of settings (du Plooy-Cilliers et al., 2014). Another advantage of doing a survey is that it is resourceful and provides researchers with a vast amount of evidence at a low monetary cost, according to Vogt et al. (2012)

A cross-sectional survey design was used as data was collected at only one point in time. A cross-sectional survey is used to collect research data to create an overall idea of a phenomenon at a particular point in time and involves a once-off collection of data (du Plooy-Cilliers et al., 2014). As a result, changes in behaviour are not captured, and the dynamics over time are not included (Kline, 2014).

#### *2.9.1.2 Questionnaires*

Questionnaires were used to collect survey data from both categories of survey respondents. Two separate questionnaires were administered to each of the categories of survey respondents, accounting students and academics. Denscombe (2003) indicates that questionnaires may be used to collect information relating to views, opinions, and even factual information and that these are appropriate when collecting brief and uncontroversial information. The advantages of using questionnaires to collect data include that these are economical, provide participants with options to select from in the form of standardised answers, and that answers can be pre-coded (De Vos and Fouché, 2005). However, questionnaires have disadvantages, such as poorly completed answers and the limited nature of the answers available to respondents.

The questionnaires (designed for accounting students and another for accounting academics) had accompanying covering letters that detailed the purpose of the study, instructions on how to complete the questionnaire, and the estimated completion time, which were given to each survey participant. The respondents were given time to read through the covering letter before survey data collection was undertaken. Participants were requested to participate in the survey voluntarily and informed that they could withdraw from the study without consequences.

Additionally, a copy of the ethical clearance was projected on a large screen to keep all participants at ease about the permission to conduct the study. Clear instructions were given to respondents on how to complete the questionnaire. Care was taken in selecting sections (from the scales adapted) and in the visual appearance of the questionnaire.

The questionnaire administered to accounting students had sections that included a Likert scale. A Likert scale is used to provide participants with options to select from and is popular because of its simplicity of the format, provides statements or opinions, and obtains the respondents' degree of agreement or disagreement with such statements (Alreck, 2004). For identification to aid in the data processing, all questionnaires were pre-numbered and different codes were used for questionnaires administered to accounting academics and accounting students.

The questionnaire administered to accounting students was arranged in five distinct parts, each focusing on one issue, thus allowing respondents to deal with one aspect (variable) at a time. The introductory part of the questionnaire explained the purpose and background of the study. The rest of the questionnaire was divided into **five parts**:

- **Part A:** This section consisted of thirteen questions and sought to determine respondents' demographic and biographical details.
- **Part B:** was made up of the adapted Life Skills Assessment Scale (LSAS): This section consisted of fifty questions intended to determine the level of selected pervasive skills (Communication, critical thinking, decision-making, problem-solving, and stress management skills) of accounting students.
- **Part C:** Self-reported academic performance: This section posed six questions to establish accounting students' academic performance in accounting subjects.
- **Part D:** was made up of the adapted Work Readiness Scale (WRS): This section consisted of twenty-four questions intended to investigate accounting students' level of work readiness.
- **Part E:** Part E *had one section*:

**Section 1:** Fifteen pervasive skills (including those in Part B) were rated according to their *perceived importance for entry-level professional accounting employment*, from high, moderate, and low.

Each questionnaire was numbered for accessible location and tracking. The estimated total completion time for the entire questionnaire (all sections) was forty-five (45) minutes.

Even though questionnaires can be administered via post or electronically, questionnaires were self-administered through a delivery and collection process in this study. In order to improve the completion rate of the questionnaire, the researcher delivered and collected questionnaires on different days. This was undertaken to give respondents sufficient time to deliberate about their responses without feeling the pressure of completing the questionnaire in the presence of someone waiting for it and to increase the chances of the full completion of the questionnaire. A date was set for the return of the questionnaires. Some participants did not pitch up to hand in their questionnaires on the initial collection date. A second date thus had to be set for those respondents who could not make it to the collection point on the initial date of collection and those who still had not completed the questionnaire by the initial date. The second date was set to improve the return/response rate. All returned questionnaires were deemed usable for this study.

One of the advantages associated with self-administered questionnaires is the high response rate (Fowler, 2009). Response rates are calculated by dividing the number of returned responses a researcher may use for the study by the total number eligible in the chosen sample (Fincham, 2008). A high response rate is crucial as it affects the sample's representativeness and the research findings' generalisability. Moreover, having a sample that is not representative of the population may result in erroneous conclusions being made by the researcher.

Table 2.1 below shows the data relating to the survey response rates. A response rate of 86.6% was obtained from student respondents. On the other hand, it should be mentioned that despite following a census approach and there being a total of twenty-six accounting academics (population), only twenty-one questionnaires were given out to accounting academics. This occurred because some academics were unavailable on the dates the questionnaires were distributed due to their hectic academic schedules. This resulted in a response rate of 57.1% for this category of survey respondents.

**Table 2.1: Response rates**

	<i>Students</i>	<i>Academics</i>
Questionnaires distributed	309	21
Returned and usable questionnaires	274	12
<b>Response rates</b>	<b>86.6%</b>	<b>57.1%</b>

Non-response rates are a problem in quantitative studies as the generalisability of the research findings is affected by those who cannot participate because they refuse to participate or are unavailable to participate. Many factors may affect the response rate when data is collected using questionnaires. Such factors include the nature of respondents (such as age, sex, education status, and others), the subject of the research (sensitive topics tend to have lower response rates), the investigator profile (age, sex, and social class), and the social climate (Denscombe, 2003). In order to determine if the response rate is acceptable, a researcher may gauge the response rate with similar studies, particularly those using similar methodologies.

Because the data collected was confidential and needed to be kept from others outside this research project, all returned questionnaires were kept in a sealed box and locked in the primary residence of the principal researcher. No names were requested on the questionnaires to enhance the anonymity of participants and their responses. Regarding the survey data collected from academics, their identities were also not required to be furnished on the questionnaire. Ethical clearance and gatekeeper approval was sought and secured from the case University (see Appendices section for a copy of the ethical clearance and gatekeeper's letter) to collect all data. All the participants were given a consent letter with all the necessary details about the study (background, aim, questions, and other important information).

### **Design (sections/scales) of the questionnaire intended to measure quantitative study variables**

The sections of the questionnaire used to collect data that was used to assess each of the variables being studied, pervasive skills, academic performance, and work readiness, were as follows:

- In order to investigate the relationship between the variables (pervasive skills, work-readiness, and academic performance), the following scales were used:
  - To measure pervasive skills: The Life Skills Assessment Scale (LSAS) was used.
  - To measure the students' work readiness: The Work Readiness Scale (WRS) was used.
  - To measure the academic performance of students: A self-reported academic performance questionnaire was used.

#### 2.9.1.2.1 The Life Skills Assessment Scale (LSAS)

Subasree and Radhakrishnan Nair (2014) developed the Life Skills Assessment Scale (LSAS). The LSAS has 100 items in its original scale, on a five-point Likert scale with ten subscales. The whole LSAS measures the following pervasive skills: decision-making, problem-solving, creative thinking, critical thinking, effective communication, interpersonal relationship skills, self-awareness, empathy, coping with emotions, and coping with stress. The internal validity, measured using the Cronbach Alpha of the original LSAS, is 0.84. However, for this study, five of the subscales were used. As a result, a shortened version of the LSAS scale was used in this study. The reduced version of the scale, which consists of 50 items, was used to assess accounting students' pervasive skills in communication, critical thinking, decision-making, problem-solving, and stress management.

Furthermore, the 50 LSAS statements used in this study were not altered except for the words 'sometimes' added to item B5.8 and the word 'academic' to item B5.1. The reliability of the shortened version of the LSAS was tested, and it yielded Cronbach's Alphas of more than 0.7 for all five sub-scales. The estimated completion time for the adapted scale was 14 minutes. The lowest score (if all questions are answered) was 50, and the highest score was 250. A low score (less than 50%) indicates poor pervasive (life) skills, and a high score (80% and above) is indicative of good pervasive (life) skills.

The selection of the study pervasive skills was consistent with the pervasive skills prescribed in the SAICA Competency Framework, which is expected to be fully integrated with accounting technical competencies such as auditing, management accounting, taxation, and financial accounting. The selection was also based on the literature study on the pervasive skills necessary for a professional career in accounting.

To reduce response bias, some of the questions in the questionnaire were reverse-scored; this was undertaken with the hope of reducing instances where respondents choose to provide the same answer to all questions/phrases, e.g., where the respondents make the survey completion process easier for themselves by answering 'yes' or 'agree' to all questions/phrases.

#### 2.9.1.2.2 Work-readiness: Work Readiness Scale (WRS)

The attributes and characteristics of work readiness were explored by Caballero et al. (2011) and based on their findings, the Work Readiness Scale (WRS) was developed. A sample of 251 respondents validated the 64-item measure. The full scale comprises 64 items on a five-point

Likert scale. The sample of 251 respondents was composed of graduates from various business-related areas in Australia, including accounting, commerce, and other relevant fields. Four factors of work readiness—work competence, organisational acumen, social intelligence, and personal characteristics were established, demonstrating the concept's complexity.

As the context is different for this current study, the WRS was validated to establish its validity and reliability as a measure of work readiness, which resulted in 24 out of the original 64 items being used in this research study. The original WRS has 64 items, and one of those was not used in this study as it did not meet this study's objective. Hence, 63 items were tested for validity, and twenty-four fit the model. The 63-item scale (D1.1 to D1.63) is provided in the annexures (ANNEXURE 1). The adapted scale had 24 items, the lowest score was 24 (if all questions were answered), and the highest score was 120. A high score indicates good work readiness, and a low score indicates poor work readiness. The estimated completion time was 20 minutes.

#### 2.9.1.2.3 Self-reported academic performance

Students' self-reported academic performance (average marks) was used to measure their academic performance. The students were asked to provide details about their most recent academic results, the 2018 and Semester 1 2019 results in three Financial Accounting modules (two second-year Financial Accounting modules and one third-year Financial Accounting module). The researcher constructed the self-reported academic performance section of the questionnaire. The estimated completion time for this part of the questionnaire was 3 minutes.

Obtaining data in this manner was more accessible and efficient, given the confidentiality of information relating to student performance. However, the accuracy of the students' self-reported academic performance could be questioned by some as to whether students reported correctly and truthfully. In as much as some researchers claim that self-reported academic reports in research studies suffer from systematic inaccuracy and may, at times, contribute to biased results, Sticca et al. (2017) present a different view through a study that sought to test the accuracy of self-reported results. Their study, through testing the correlation between self-reported academic performance and actual academic performance, found a significant positive correlation between the two variables studied (*ibid*). Those findings suggest that self-reported academic results could be an accurate indicator of the student's actual performance. Rosen et al. (2017) concur that inaccuracies in self-reported academic performance can be attributed to

carelessness, error, and mischievous responses. The accuracy is significantly improved when students report their academic results without others and human interviewers. This prompted the researcher not to supervise the students when completing the questionnaire.

The researcher designed the self-reported academic performance part of the questionnaire. The design of the questions in the questionnaire was informed by the literature studied and the type of information required to answer the research questions. Care was taken in the design of this part of the questionnaire. All questions were presented to an English language expert for review. The review was intended to ensure that this questionnaire section did not contain loaded, leading, or double-barrelled questions. Loaded questions lack neutrality, tend to indicate the researcher's view, and have emotionally laden terms. Leading questions, on the other hand, sway respondents in a particular way. Double-barrelled questions tend to include words like 'and' and 'or' and can ask more than one question in a sentence/phrase, potentially confusing the respondents.

## 2.9.2 Qualitative data

The purpose of the focus group discussions and semi-structured interviews was to collect qualitative data that would answer research questions one and three.

### 2.9.2.1 *Focus group discussion: Accounting students*

Qualitative data from accounting students was collected through two (Group 1 and Group 2) semi-structured focus group discussions after the quantitative data collection process. The decision to conduct two separate group discussions was not planned at the project's inception but was based on logistical reasons. After recruiting focus group discussion participants, it was noted that many students expressed an interest in participation and thus could not have them as one group. Secondly, securing a time slot suitable for all participants would have been challenging, hence the two focus group discussions. A focus group discussion is an interview with a group of participants as opposed to one-on-one interviews. More specifically, according to Hennink et al. (2020), a focus group is an interactive discussion involving six to eight pre-selected participants centred on a specific set of questions. Focus group discussions were selected to get a group's informative viewpoint. Another reason for conducting focus group discussions as opposed to one-on-one interviews was time and financial constraints on the researcher's part. An interview guide comprised of closed and open-ended questions was followed to guide the discussions. The researcher hoped to obtain a richer understanding of the

variables being studied through focus group discussions. An advantage of focus group discussions is that these may produce research data rich in detail, which may be challenging to obtain using other data collection methods (Maree, 2007).

Additionally, it is indicated that group discussions have an advantage over individual interviews as these have the potential to reveal the cultural and social contexts of participants' understandings and beliefs (King and Horrocks, 2010). Another advantage of focus group discussions indicated in Remler, and Van Ryzin (2014) is that in focus groups, research participants may differ in views about a topic; this allows the researcher to determine the views that are widely shared versus individualistic views. The decision to use focus group discussions instead of individual interviews is due to resource constraints (time, finances, and venues), as many participants can be interviewed simultaneously. Consent was sought from participants to record the discussions. Notes were also taken during the discussions to facilitate better reflection after completing the interview.

### **Overview of focus group discussions**

Gathering data using focus groups proved to be a challenging experience for various reasons:

#### **Focus Group 1 (FG1)**

Focus Group 1 was difficult to group. As a result of their studies and part-time work commitments of the participants, it was challenging to arrange a time that would be suitable for all selected and willing participants. Originally eight participants were selected to participate in FG1, but only six could make it on the date finally decided upon. The other two participants, although they were willing, could not participate. The time set for the focus group discussions had to be moved two times to accommodate students running late because of transport problems and other pressing commitments. The other challenge with this particular group was securing a venue on campus to have the discussion. A small lecture venue was eventually used, but the challenge was that it was also occupied by a few other students who were not studying but using it as a social space. This resulted in a slightly noisy environment. Adding to those challenges, building rapport was challenging because FG1 was composed of accounting students with whom the researcher had no prior academic interactions. Once the rapport was established, the participants found it easy to relate to me, and only then were they comfortable sharing their views with the researcher openly.

## **Focus group 2 (FG2)**

Focus Group 2 was also challenging to group together. Some of the originally purposively sampled members had left campus because examinations were over, and they had to leave campus residences for their homes. As a result, only two students residing on campus participated; the other four reside with their families off-campus. The gender composition of the group changed from the one initially planned, with only one female participant. A fair racial representation was achieved, however. Building a rapport with this group was not challenging, and their participation was good. All the participants were not reserved and not afraid to voice their opinions and views.

### *2.9.2.2 Semi-structured interviews: Accounting academics*

Semi-structured interviews were conducted with academics teaching in the BCOA academic programme. Semi-structured interviews are non-standardized and involve the researcher having a list of questions they intend to ask the research participants (Gray, 2004). The semi-structured interviews followed an interview guide comprising of a combination of open and closed questions. When using interviews as a data collection instrument, the aim is to obtain the interpretation of the person being interviewed (Ezzy, 2002). The benefits associated with semi-structured interviews include the fact that the researcher may get an opportunity to ask questions that were not anticipated at the start because new issues may arise from responses received from participants (Gray, 2004). The researcher should accommodate the new issues, provided they align with the study's objectives.

## **2.10 Validity and reliability of quantitative data collection instruments**

When conducting quantitative research, it is crucial to ensure that all the data collection strategies and tools used meet the minimum requirements. Reliability and validity are the most common and significant concepts connected to data collection instrument selection and other evaluation methods.

### **2.10.1 Validity**

Testing the validity of the instrument used for data collection ensures that the tool consistently measures what it intends to measure (Tavakol and Dennick, 2011). According to De Vos and

Fouché (2005), there are two aspects to validity testing, and the first one tests whether a question measures what it is intended to measure and whether it can test that accurately. Also, four classification schemes or approaches may be applied as criteria when determining the validity of data collection instruments: content, criterion, face, and construct validity (*ibid*).

Face validity is the simplest to determine; using this criterion, the researcher would be concerned about whether, from the respondents' perspective, i.e., at face value, the tool measures the variable it intends to measure (Gravetter and Forzano, 2012). Additionally, Jackson (2014b) further suggests that face validity is concerned with whether or not the data collection tool appears to measure what it intends to measure.

Although established on a subjective judgment basis, content validity ensures that the data collection instrument provides sufficient meanings or forms in the measured variable. A content validity test assesses the content it intends to test acceptably. In order to determine content validity in this research study, the data collection instrument, the questionnaire in this regard, was presented to experts in the field of accounting education. These experts were subject specialists identified from various Higher Education institutions across South Africa whose institutions offered an accredited Bachelor of Commerce: Accounting degree on a full-time basis. The experts had to use their knowledge and experience to determine whether the questionnaire measured the content it intended to measure and reviewed it for face validity. A total of five (5) experts reviewed the questionnaire.

Criterion validity, described by De Vos (2005) as comprising many measurements and determined by matching results on an instrument with an external data source known to, or thought to, gauge the concept, trait, or behaviour being examined, presents an objective approach of assessing validity. Similarly, Jackson (2014: 72) defines it as “The extent to which a measuring instrument accurately predicts behaviour or ability in a given area”. Provided that, it would appear that criterion validity is made possible by the availability of independent criteria against which the scores achieved through testing could be compared.

Construct validity is used to test theoretical construct validity. Because of the very nature of constructs, testing these may be challenging as they are not tangible, and cannot be felt, seen, or heard. Most constructs may be classified as traits. Construct validity usually involves obtaining data from many sources to ensure that the instrument measures precisely what it intends to measure and removes all other possible variables that may be influencing that construct. Jackson (2014) suggests a way that researchers may take to determine construct

validity; he suggests that to determine construct validity is to demonstrate that the results of a new test differ across individuals with different levels of the trait being tested.

### 2.10.2 Reliability: Data collection instruments

Testing data collection instruments for reliability is essential. When testing for reliability, the aim is to determine whether the instruments can measure with consistency, thus ensuring that if the measurement were to be re-performed, with the data remaining the same, using the same tool, the results would be the same. To enhance the reliability of data collection instruments, the following procedures are recommended by Neuman and Kreuger (2003:180):

- “Clearly conceptualise all constructs by clearly developing unambiguous theoretical definitions of all constructs, making sure that each construct measures only one specific concept
- Increase the level of measurement – Indicators at higher or more precise levels of measurement are more likely to be reliable than less precise measures because the latter pick up less detailed information. Try this to measure at the most precise level possible.
- Use multiple indicators of the variable. Use two or more indicators (e.g., two or more questions in a questionnaire) to measure each aspect of a variable.
- Use pre-tests, pilot studies and replications –develop a draft, or drafts, or preliminary versions, of a measure and test these before applying the final version in a hypothesis-testing situation”.

Cronbach's Alpha was employed to measure the questionnaire constructs' reliability in this investigation. The Cronbach's Alpha is the most widely utilized internal consistency indicator. It calculates reliability based on the consistency of item responses from a single test. Cronbach's Alpha has a widely accepted lower limit of 0.7. (Hair, 2009). The survey questionnaire was designed by adapting two widely used and published scales, the Life Skills Assessment Scale (LSAS) and the Work Readiness Scale (WRS)

### **Exploratory Factor Analysis (EFA): Life Skills Assessment Scale (LSAS)**

Given that the adapted Life Skills Assessment Scale (LSAS) had fifty items and the total number of respondents was 274, an Exploratory Factor analysis was conducted. A minimum

subject-to-item ratio of at least 5:1 is proposed by Gorsuch (1983) and Hatcher (1994) for Exploratory Factor Analysis.

EFA determines which components in the composition of study variables are considered significant. (Field, 2009). This study performed EFA with principal components as the extraction method and Varimax as the orthogonal rotation method with Kaiser Normalization. Varimax, Equimax, and Quartimax are three types of orthogonal rotation techniques (Everitt, 2009). Varimax rotation was used in this research because it offers the best factor separation (*ibid*). According to Kline (2014), a factor is a construct expressed as a statement or underlying main concept that is interpreted using correlations (factor loadings) between a set of items. Accordingly, factor analysis brought the tools for analyzing correlations among multiple items and establishing highly correlated item (factors) sets. At the same time, orthogonal rotation was used to reduce the rows and columns of a factor matrix to make it easier to interpret. The size of the factor loadings was used to determine the interpretation of factors. Chiefly, the higher the factor loading, the more the variable indicates the factor (Ho, 2006). Generally, a score of 0.8 or higher is considered high (Field, 2005). However, studies in the social sciences tend to produce low to moderate factor loadings (between 0.4 and 0.7) (Costello and Osborne, 2005).

The internal consistency of the items that make up the construct measurement scale of the Life Skills Assessment Scales is discussed in this section. The results demonstrate that the items that make up the scale under study have very good internal consistency (Cronbach’s alpha statistics>0.700). More information is provided in Table 2.2 below:

**Table 2.2: Exploratory Factor Analysis: Life Skills Assessment Scale**

<b>Construct</b>	<b>Number of Items</b>	<b>Cronbach’s Alpha</b>	<b>Comment</b>
<b>Life skills measurement scale (LSAS)</b>			
Communication skills	9	0.715	High internal consistency
Critical thinking skills	11	0.825	High internal consistency
Decision-making skills	12	0.730	High internal consistency
Problem-solving skills	10	0.788	High internal consistency
Stress management skills	8	0.700	High internal consistency

## **Confirmatory Factor Analysis (CFA) of the Work Readiness Scale (WRS)**

A confirmatory factor analysis was conducted to understand the study variables' measurement model (for work readiness). Using Confirmatory Factor Analysis, the reliability and validity of a measuring instrument are determined. With regard to the instrument, construct validity is critical. CFA is another form of Structural Equation Modelling (SEM) dealing primarily with the measurement model, particularly the relationship between observed and latent variables (Brown, 2015).

In CFA, a test is undertaken on the statistical importance of a hypothesised factor composition, which indicates the number of factors that will exist within a set of variables and the factor tallying to each variable (Hair 2006). The results of CFA can provide compelling evidence of the convergent and discriminates validity of theoretical constructs. Convergent validity is indicated by evidence that different indicators of theoretically similar or overlapping constructs are strongly interrelated. Discriminates validity is indicated by results showing that indicators of theoretically distinct constructs are not highly inter-correlated.

A confirmatory factor analysis (CFA) was carried out on the data using version 27 of the Analysis of Moment Structure (AMOS) software. CFA was conducted on the original four-factor (Personal Characteristics – PC, Organisational Acumen – OA, Work Competence – WC, and Social Intelligence – SI) work readiness scale with 63 questionnaire items. CFA was conducted on observed variables to determine if each model's set of latent variables confirmed a factor-loading pattern for the specified latent variables in each model when utilising a sample of final-year accounting students. Items with low commonalities ( $<0.5$ ) were dropped from the scale.

The Root Mean Squared Error Approximation (RMSEA) and minimum discrepancy per degree of freedom (CMIN/DF), both of which were employed in this study, are among a large number of measures to assess the empirical quality of the CFA in terms of goodness-of-fit measures (Field, 2009). RMSEA is an absolute fit index that assesses how far from a perfect model a proposed model is. Absolute fit indices show which proposed model best fits the sample data and determine how well an a priori model fits the data (McDonald and Ho, 2002). The RMSEA's ability to generate a confidence interval around its value is one of its significant advantages (MacCallum et al., 1996). CMIN/DF is also a fit index test. A CMIN/DF5

indicates a reasonable fit, according to Marsh and Hocevar (1985). Overall, these measures offer the most fundamental indicator of how well the proposed theory fits the data.

The details and results of the CFA on the WRS are presented and discussed below:

### **Confirmatory factor analysis results for the Work Readiness Scale.**

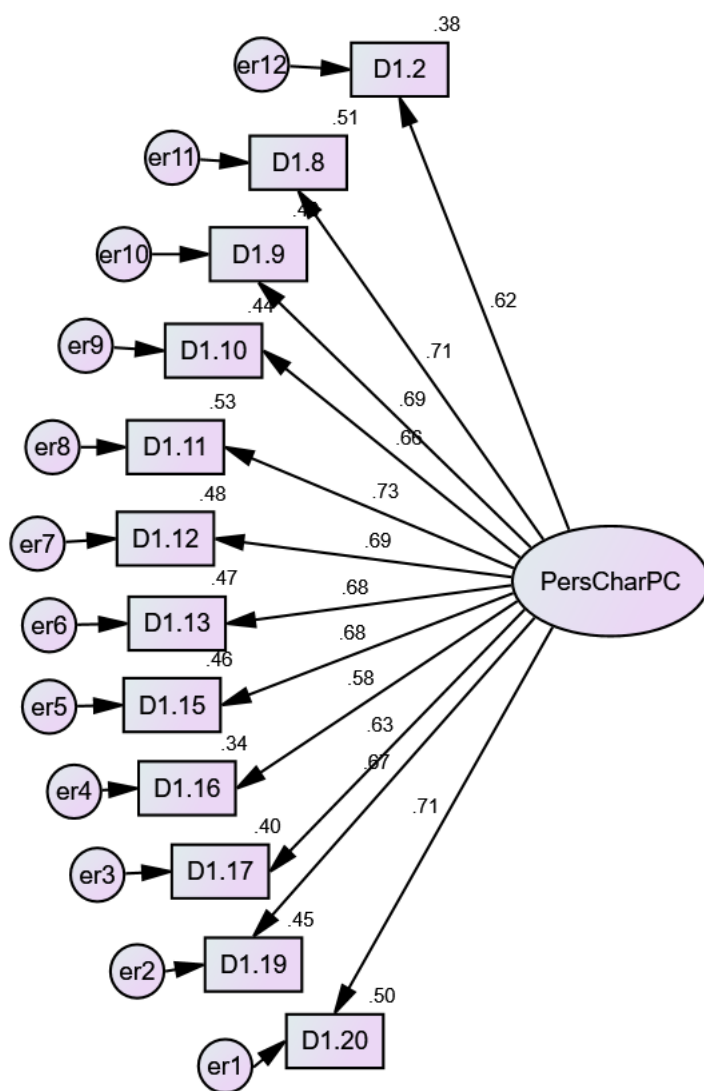
When retaining those items with communalities greater than 0.400, the Work Readiness Scale will comprise 24 items, as shown below.

#### **1. Personal Characteristics (PC)**

A factor model with only one factor for the Personal Characteristics scale (PC) (Table 2.3) shows that the scale has 16 items with very low communalities (<0.5), which were dropped from the scale.

**Table 2.3 Factor communalities of the Personal Characteristics (PC) scale of work readiness**

	<b>Communalities</b>	<b>Component Coefficient</b>	
D1.1 I take things personally	0.336	0.580	✗
D1.2 I am intolerant of critics.	0.433	0.658	✗
D1.3 Managing many things stresses me.	0.047	0.218	✗
D1.4 I am not comfortable with taking criticism.	0.298	0.546	✗
D1.5 I will not have a problem with approaching senior people at an accounting professional work environment.	0.037	0.193	✗
D1.6 I sometimes experience difficulty starting a task	0.303	0.550	✗
D1.7 I am confident that I will be able to deal with competing accounting professional work demands.	0.030	0.172	✗
D1.8 I am easily offended.	0.546	0.739	✓
D1.9 I am unsure when it is appropriate to speak up or to stay quiet.	0.507	0.712	✓
D1.10 I have discomfort asking questions when unsure	0.428	0.654	✗
D1.11 I am overwhelmed by challenging circumstances.	0.543	0.737	✓
D1.12 I do not like being told how to do things differently.	0.518	0.720	✓
D1.13 I get upset if others change the way I have organised things.	0.502	0.708	✓
D1.14 I am confident that I will be able to manage new social situations in an accounting professional work environment.	0.032	0.178	✗
D1.15 I have difficulty understanding abstract ideas*	0.518	0.719	✓
D1.16 I do not think I will succeed with the accounting professional career goals I have set.	0.409	0.640	✗
D1.17 I have a tendency to judge others.	0.432	0.657	✗
D1.18 I have superiority over others who have less knowledge of Accounting.	0.343	0.586	✗
D1.19 I have difficulty establishing trust and rapport.	0.485	0.696	✗
D1.20 Juggling too many things at once is one of my weaknesses.	0.497	0.705	✗
D1.21 I do not like the idea of change.	0.326	0.571	✗
D1.22 I do not like learning new things.	0.365	0.604	✗



**Figure 2.1 CFA model for Personal Characteristics (PC)**

The results from the CFA model for Personal Characteristics (PC) shown in Figure 2.1 above, after dropping some items, show that most of the items have regression weights below 0.7, with only items D1.8, D1.11, and D1.20 having weights above 0.7. The Model Fit parameters are presented in Table 2.4 below.

**Table 2.4 Model fitness statistics for PC**

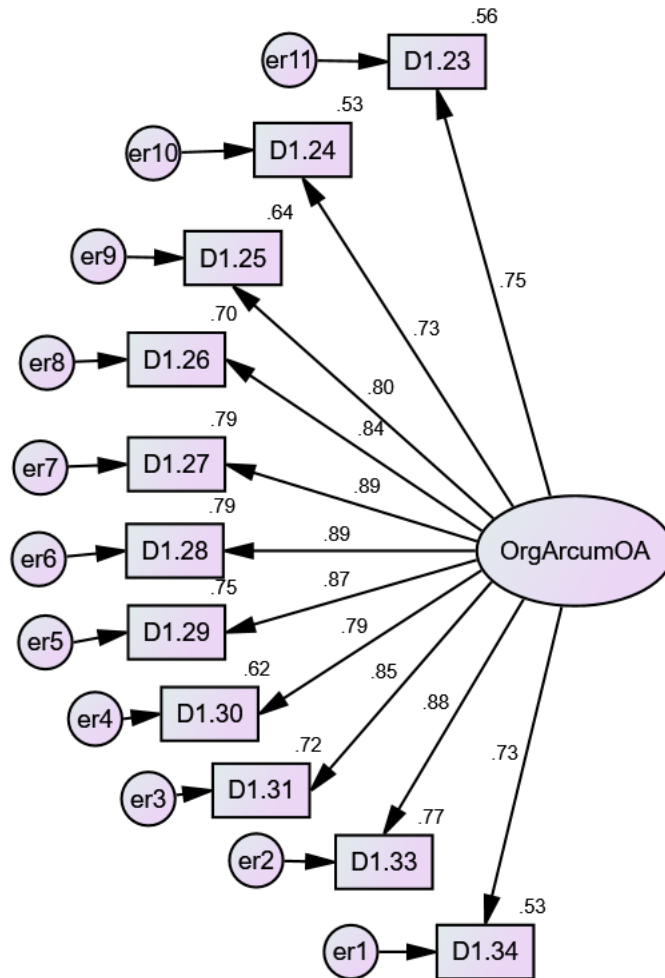
Test index	Test Standard	Result	Comment
RMSEA	≤0.08	0.135	Not good
CMIN/df	≤5.00	6.215	Not good

## 2. Organisational Acumen (OA)

A factor model with only one factor for the Organisational Acumen (OA) scale, as presented in Table 2.5 below, shows that the scale has eight items with very low communalities (<0.5), which were dropped from the scale.

**Table 2.5 Factor communalities of the Organisational Acumen (OA) sub-scale of work readiness**

	Communalities	Component Coefficient	
D1.23 I think one learns from work colleagues.	0.581	0.762	✓
D1.24 I think I can learn from employees who have worked in a professional accounting work environment for many years, even if they do not have an Accounting university degree	0.515	0.718	✓
D1.25 Learning from long serving employees is important in an accounting professional work environment.	0.594	0.771	✓
D1.26 I believe that understanding organizational processes is important.	0.663	0.814	✓
D1.27 It is important to learn as much as possible about the employer (accounting firm) if you have just joined the organisation.	0.730	0.854	✓
D1.28 It feel that respecting colleagues is important.	0.711	0.843	✓
D1.29 I believe that keeping abreast of developments in the accounting field is important.	0.732	0.856	✓
D1.30 I take responsibility for my decisions and actions.	0.687	0.829	✓
D1.31 I respect authority figures.	0.714	0.845	✓
D1.32 I understand the impact of global issues in accounting on professional accounting work.	0.489	0.699	✗
D1.33 I am open to opportunities to learn and grow in the workplace.	0.749	0.865	✓
D1.34 I am eager to throw myself into a professional accounting work environment.	0.584	0.764	✓
D1.35 I always work on improving myself in terms of knowledge of my discipline, accounting.	0.270	0.519	✗
D1.36 I believe that an organization's values and beliefs form part of its culture	0.472	0.687	✗
D1.37 I believe that feedback is an opportunity for learning.	0.493	0.702	✗
D1.38 I thrive on completing tasks and achieving results.	0.484	0.696	✗
D1.39 I cannot wait to start work in a professional accounting environment and throw myself into a project.	0.482	0.694	✗
D1.40 I believe that newly graduated accounting professionals should be willing to start at the bottom.	0.475	0.689	✗
D1.41 I believe that listening and learning is more important than showing your knowledge at work.	0.408	0.639	✗



**Figure 2.2 CFA model for Organisational Acumen (OA)**

The results from the CFA model for OA, as displayed in Figure 2.2 above, after dropping some items, show that all items have regression weights above 0.7. The Model Fit parameters are presented in Table 2.6 below.

**Table 2.6 Model fitness statistics for OA**

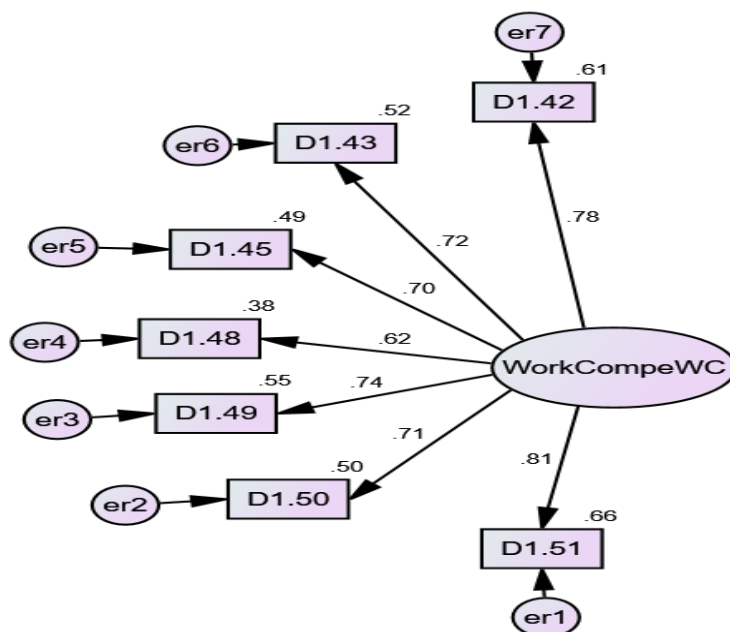
Test index	Test Standard	Result	Comment
RMSEA	≤0.08	0.136	Not good
CMIN/df	≤5.00	6.319	Not good

### 3. Work Competence (WC)

A factor model with only one factor for the Work Competence (WC) scale, as shown in Table 2.7, shows that the scale has seven items with very low communalities (<0.5), which were dropped from the scale.

**Table 2.7 Factor commonalities of the Work Competence (WC) sub-scale of work readiness**

	Communalities	Component Coefficient	
D1.42 I have confidence about the accounting discipline knowledge I possess.	0.654	0.809	✓
D1.43 I have theoretical understanding of the field/discipline of accounting.	0.550	0.742	✓
D1.44 People approach me for original ideas.	0.304	0.551	✗
D1.45 I have confidence in my accounting technical competency.	0.512	0.716	✓
D1.46 I am aware of my strengths and weaknesses	0.443	0.666	✗
D1.47 I remain calm under pressure.	0.429	0.655	✗
D1.48 I believe that being successful at work is very important.	0.543	0.737	✓
D1.49 I can cope with multiple demands.	0.541	0.735	✓
D1.50 I set high standards for myself and others.	0.654	0.809	✓
D1.51 I have the ability to analyse and solve accounting problems.	0.526	0.725	✓
D1.52 I am passionate about accounting.	0.480	0.693	✗
D1.53 Being amongst the best in the accounting field is very important to me.	0.461	0.679	✗
D1.54 I have an eye for detail.	0.438	0.662	✗
D1.55 I have a mature view of life	0.406	0.638	✗



**Figure 2.3 CFA model for Work Competence (WC)**

The results shown in Figure 2.3 above from the CFA model for WC after dropping some items show that all items except one have regression weights above 0.7. The Model Fit parameters are presented in Table 2.8 below.

**Table 2.8 Model fitness statistics for WC**

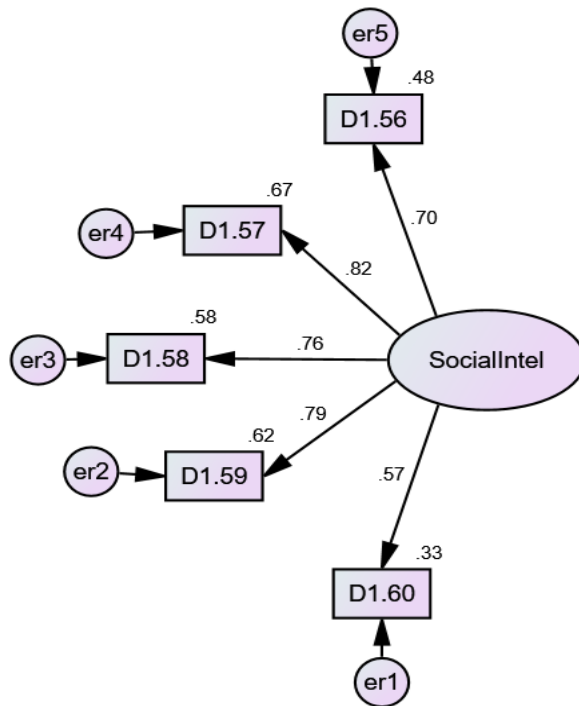
<b>Test index</b>	<b>Test Standard</b>	<b>Result</b>	<b>Comment</b>
RMSEA	≤0.08	0.140	Not good
CMIN/df	≤5.00	6.623	Not good

#### **4. Social Intelligence (SI)**

A factor model presented in Table 2.9 below, with only one factor for the Social Intelligence (SI) scale, shows that the scale has three items with very low communalities (<0.5), which were dropped from the scale.

**Table 2.9 Factor communalities of the Social Intelligence (SI) sub-scale of the work readiness**

	<b>Communalities</b>	<b>Component Coefficient</b>	
D1.56 I adapt to different social situations easily.	0.568	0.754	✓
D1.57 I develop relationships with people easily.	0.577	0.760	✓
D1.58 I have an open and friendly approach.	0.667	0.817	✓
D1.59 I can express myself easily.	0.539	0.734	✓
D1.60 I am good at making impromptu speeches.	0.651	0.807	✓
D1.61 I adapt easily to new situations.	0.400	0.632	✗
D1.62 I can read body language.	0.471	0.686	✗
D1.63 I like working in groups.	0.008	0.092	✗



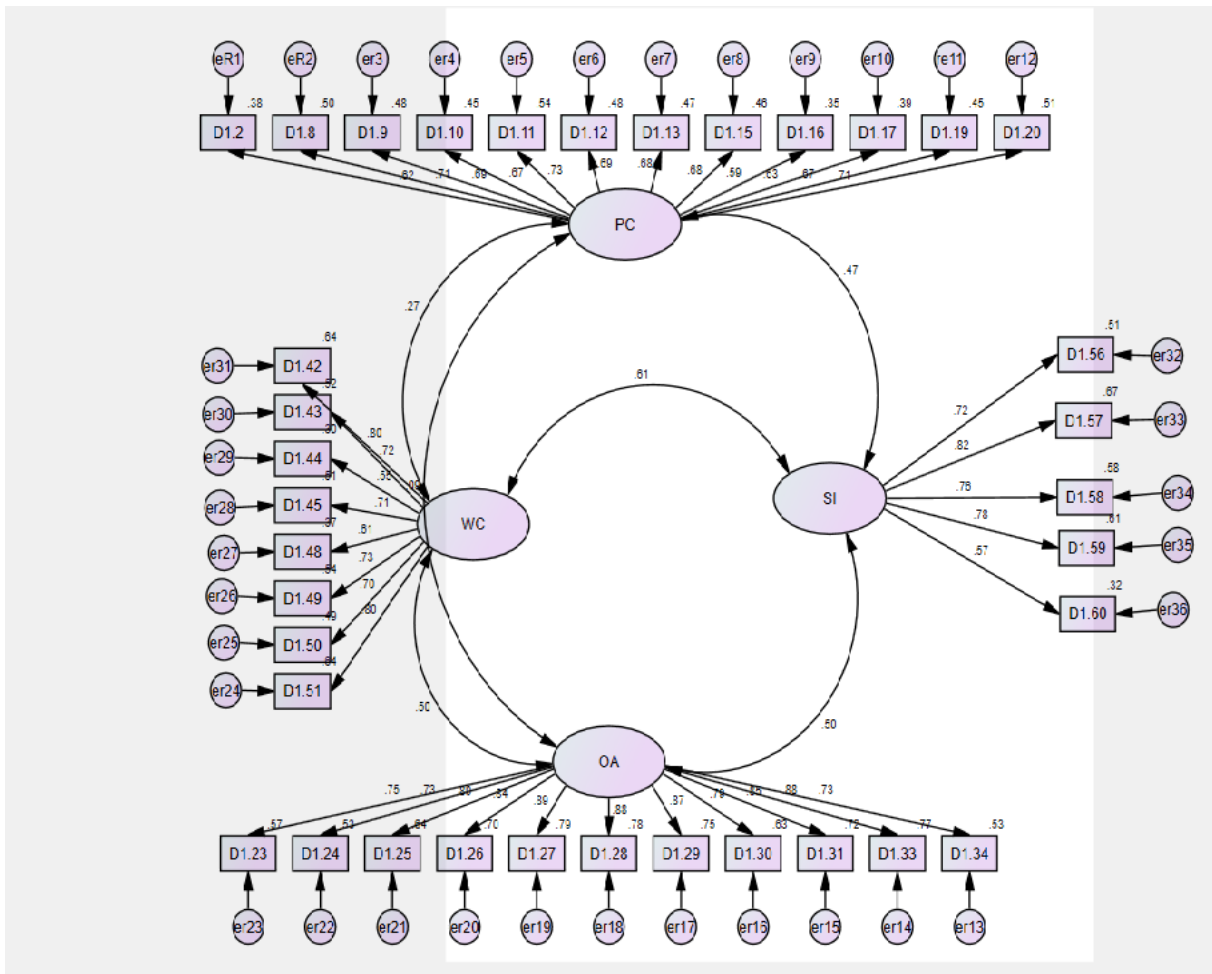
**Figure 2.4 CFA model for Social Intelligence (SI)**

The results presented in Figure 2.4 above from the CFA model for SI after dropping some items show that all items except one have regression weights above 0.7. The Model Fit parameters are presented in Table 2.10 below.

**Table 2.10 Model fitness statistics for SI**

<b>Test index</b>	<b>Test Standard</b>	<b>Result</b>	<b>Comment</b>
RMSEA	$\leq 0.08$	1.290	Not good
CMIN/df	$\leq 5.00$	5.769	Not good

## Overall Model



**Figure 2.5 Overall Model**

Test index	Test Standard	Result	Comment
RMSEA	≤0.08	0.091	Almost good
CMIN/df	≤5.00	3.410	good

Despite the individual dimensions of work readiness not achieving a good model fit, as shown in Tables 2.4, 2.6, 2.8, and 2.10, based on the results shown in Figure 2.5 above, showing the RMSEA and CMIN/df statistics, the overall observed structure of work readiness among final-year professional accounting students had a good model fit.

The overall model statistics are presented below.

### Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	114	2004.930	588	.000	3.410

Model	NPAR	CMIN	DF	P	CMIN/DF
Saturated model	702	.000	0		
Independence model	36	7590.817	666	.000	11.398

### Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.736	.701	.798	.768	.795
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

### Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.883	.650	.702
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

### NCP

Model	NCP	LO 90	HI 90
Default model	1416.930	1284.592	1556.821
Saturated model	.000	.000	.000
Independence model	6924.817	6647.805	7208.303

### FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	6.962	4.920	4.460	5.406
Saturated model	.000	.000	.000	.000
Independence model	26.357	24.045	23.083	25.029

### RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.091	.087	.096	.000
Independence model	.190	.186	.194	.000

## AIC

Model	AIC	BCC	BIC	CAIC
Default model	2232.930	2266.540		
Saturated model	1404.000	1610.964		
Independence model	7662.817	7673.431		

## ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	7.753	7.294	8.239	7.870
Saturated model	4.875	4.875	4.875	5.594
Independence model	26.607	25.645	27.591	26.644

## HOELTER

Model	HOELTER .05	HOELTER .01
Default model	93	97
Independence model	28	29

## Academic performance of accounting students

The researcher designed the self-reported academic performance part of the questionnaire. The design of the questions in the questionnaire was informed by the literature studied and the type of information required to answer the research questions. Care was taken in the design of this part of the questionnaire. All questions were presented to an English language expert for review. The review was intended to ensure that this questionnaire section did not contain loaded, leading, or double-barrelled questions. Loaded questions lack neutrality, tend to indicate the researcher's view, and have emotionally laden terms. Leading questions, on the other hand, sway respondents in a particular way. Double-barrelled questions tend to include words like 'and' and 'or' and can ask more than one question in a sentence/phrase, potentially confusing the respondents.

The researcher created the questionnaire component that aimed to collect academic performance scores from accounting students and included it in the questionnaire and the two published scales. In the section aimed at collecting academic performance scores, accounting

students were expected to divulge how they performed in the previous examination in three modules of Financial Accounting. This type of data likely attracted trait error because students reported on their academic performance. Trait error may result if research participants are not truthful in their responses.

## 2.12 Qualitative data collection: Trustworthiness/ Rigour

It is critical in research to trust the researcher's findings, such that if a new researcher conducts the same research in the same context, he or she discovers identical findings. According to Merriam and Tisdell (2015), qualitative researchers face challenges in ensuring research quality and credibility. Various strategies are therefore suggested to address concerns about qualitative research's credibility and rigour. According to Lincoln and Guba (1985), methodological rigor in qualitative research stems from establishing trustworthiness based on the following criteria: credibility, dependability, confirmability, and transferability. That is to say, in qualitative research, rigour shows evidence of integrity and expertise through meticulous attention to detail and precision in order to maintain the research process's trustworthiness. Overall, in qualitative research, according to Krefting (1991), trustworthiness is the way of conveying data findings and outcomes in a sound, trustworthy, and objective manner. Qualitative researchers can use any of the recommended criteria to ensure the trustworthiness of the findings.

Essentially, the researcher must convince the audience that the research findings are worth noting to be considered trustworthy (Lincoln and Guba, 1985:290). Overall, in qualitative research, according to Krefting (1991), trustworthiness is the way of conveying data findings and outcomes in a sound, trustworthy, and objective manner. The discussion on how rigour was ensured in the qualitative part of this study will be provided holistically.

As Dawson (2002) recommended, the trustworthiness of this study was bolstered by the study process' transparency, which was supported by the audio tapes of the interviews since the audio and transcribed data can be used to ensure confirmability. Also, trustworthiness was strengthened by tape-recording interviews in order to obtain accurate and substantially full records. Before the qualitative data analysis was undertaken, the audio recordings were listened to several times, and a regular comparison with the initial transcriptions was made to maintain the accuracy of the transcriptions.

The issue of bias was another aspect that needed to be addressed in the qualitative part of the study. According to Chenail (2009), concerns about bias are realistic, especially when the researcher is the tool used to gather research data. Direct quotes from participants were used instead of the researcher's interpretations of the participants' responses to address researcher bias. This meant that the participants' voices were preserved in the findings presentation, whereas the researcher's interpretive voice was only heard during the data analysis phase. Participants were afforded the opportunity to comment and clarify their responses after the data collection. This accurate and authentic representation of a participant's views ensured the credibility of the findings.

Also, the data collection instruments - interview schedules were also validated in this study by using external reviewers to ensure that the instruments were measuring what they were designed to measure and assuring content validity. Furthermore, the interview schedules were used during the pilot study to ensure that credible, unbiased, and valid data was obtained. Furthermore, all phases of the research process were meticulously documented to safeguard credibility, particularly the research methodology, participant sampling techniques, and qualitative data analysis.

### 2.13 Pilot study

A small study undertaken before the main investigation conducted with the view of confirming whether the methodology, sampling, tools, and analysis are acceptable and appropriate is referred to as a pilot study, according to Bless et al. (2000). For these reasons, in this study, a pilot study was conducted to ensure that the data collection instruments were appropriate in terms of length, time, wording, language, readability, and understandability. Piloting the data collection instruments assisted in removing or revising questions, thus ensuring that the instruments were adequate and free from errors. The piloting process also helped the researcher avoid problems that would have arisen during the study by pre-running the research process and then reviewing it.

Before the research instruments were piloted, the instruments were presented to a carefully selected expert group consisting of three (3) academics with extensive knowledge and experience in the field of accounting and research. The duty of the expert group was to use their experience and extensive knowledge of the field to advise on the design (physical appearance of the questionnaire), wording, and nature of questions in all data collection

instruments. Because the adapted scales used to design the questionnaire: The Life Skills Assessment Scale (LSAS) and the Work Readiness Scale (WRS), are all internationally developed scales, the experts had carefully reviewed the questions, in particular, the language in order to determine if it applies to the South African context. The results from the expert group were considered, and improvement recommendations were taken into consideration in the revision of the instruments, thus enhancing the practical and technical aspects of the study. Three sets of pilot groups were carefully considered and selected.

### **Survey pilot study**

The pilot group for the survey questionnaire comprised forty (40) second-year students registered for the Bachelor of Commerce: Accounting degree. In order to gain access to the pilot group, I used the snowball method. Initially, I had access to only three accounting students who asked their friends to be pilot study participants. The pilot study participants were given the questionnaire over two weeks to comment on and complete. However, it was noted that not all pilot group participants provided a commentary about the questionnaire; some merely completed and returned it. Some participants were only able to verbally comment to the three students who collected back the questionnaires. The students who collected the questionnaires communicated the comments made verbally to the researcher. Another setback was the response rate of the pilot study; of the 40 accounting students who agreed to participate, only 25 questionnaires were received back. It is assumed that the timing of the pilot study affected the response rate as the pilot study was undertaken during examination time and students were not available to participate due to study commitments.

From the feedback received from the pilot study participants, the questionnaire was refined. The pilot group indicated that there were too many questions. To address that concern, some questions were removed. The questions from the original scales used to measure the variables under study were not removed to not interfere with the instrument's validity. Biographical and other opinion-related questions were the only ones removed. Some questions were reworded to enhance understanding and readability. The participants also indicated that some questions were soliciting the same information. The removal of some questions attended to the duplication.

## **The pilot of the semi-structured interview schedule and focus group discussion questions**

The focus group interview schedule was piloted on ten (10) second-year accounting students. In order to pilot the semi-structured interview schedule, three (3) academics in the accounting department who were not sampled as participants in the main study were selected as a pilot group. These pilot group participants were also requested to share their views about the questions' language, wording, and sequencing. All inputs and recommendations were considered in the design of the interview schedule used in the primary investigation. All participants in the pilot study did not participate in the primary investigation.

### **2.14 Data analysis**

According to Marshall and Rossman (2014), data analysis gives a vast amount of data organisation, structure, and significance. In other words, it is a process of making sense of, interpreting, and conceptualizing data that entails a search for general statements within data categories (Schwandt, 2001). As a result, one could argue that data analysis necessitates applying some logic to the research. Moreover, the application of deductive and inductive reasoning to the investigation is represented by data analysis and interpretation (Best and Kahn, 2006).

#### **2.14.1 Qualitative data analysis**

A qualitative approach was adopted to analyse the data collected to address the first and the third research objectives. A qualitative method of analysing data mainly encompasses certain theoretical and epistemological assumptions that better understand human experience (Silverman and Subramaniam, 1999). Given that, it would seem then that clear thinking on the part of the individual analyzing the data (researcher) is one of the most critical prerequisites in qualitative analysis.

The thematic analysis approach suggested by Braun and Clarke (2006) was followed to analyse all qualitative data collected in this study. Thematic analysis is a technique for generating, evaluating, and presenting data patterns (themes) (Braun and Clarke, 2006). There are many benefits associated with thematic analysis; one of these benefits is that it offers a wealth of versatility when it comes to understanding data, and it makes it easier to approach a vast data

set by categorizing it into broad themes. The thematic approach by Braun and Clarke (2006) suggests a six-step structured process for data analysis as discussed below:

### Step 1

#### *Familiarisation with the data*

Before analysing individual items, the researcher must immerse themselves in and become intimately familiar with their data, reading and re-reading it and listening to audio-recorded data at least once to gain a complete overview of all the data collected. A researcher takes first notes during this period. This phase also entails data transcription.

### Step 2

#### *Initial coding*

Coding, the second phase, entails systematically coding interesting data aspects across the entire data set and compiling data pertinent to each code. This entails creating succinct labels for crucial data elements that are relevant to the research topic that guides the study. The codes represent a semantic and conceptual interpretation of the data. Every data item is coded, and the process is completed by compiling all of the codes and pertinent data extracts.

### Step 3

#### *Searching for themes*

Gathering all data related to the codes by putting them together into similar clusters to a potential theme. A theme is a logical and understandable pattern in the data that captures the core of the data and is related to the research question.

### Step 4

#### *Reviewing themes*

This stage entails returning to the data set, comparing the themes to determine if anything was missing, and testing if the themes work in connection with the coded extracts and the complete data set. The researcher should consider whether the themes create a convincing and engaging story about the data and whether they are trustworthy and usable data representations.

## Step 5

### *Defining and naming themes*

This step necessitates a thorough examination of every theme by the researcher and entails a continuous analysis to fine-tune the specifics of each topic and the overall story told by the study, resulting in clear-cut definitions and titles for each theme.

## Step 6

### *Writing up*

This is the last step in the thematic analysis process and involves writing up the data analysis. The write-up entails selecting vivid, captivating data extracts and the final analysis of selected extracts connecting the analytic narrative to convey to the readers a cohesive account of the data, tying the analysis back to the research question and the existing body of literature.

Above all, the qualitative results provided a far richer understanding of all the study questions it investigated.

### **Research objectives (ROs) One and Three:**

The qualitative data collected through focus group discussions with accounting students and semi-structured interviews with accounting academics was recorded (with prior consent from the participants). The data was prepared and analysed using NVivo, a qualitative research tool used for analysing unstructured data. The data analysis started with listening to the recordings of all interviews and focus group discussions recorded on the computer. Each audio was listened to three times before transcription began. During this phase, the researcher also reviewed notes taken during the interview and then transcribed that data. This was a crucial stage in the analysis since it started the data familiarization process.

All qualitative data collected was transcribed verbatim. The transcription process was lengthy and required time and patience. A total of nine (9) interviews and two (2) focus group discussions were transcribed. One focus group discussion participant (FG2) presented a challenge in this process because his voice was too soft, and thus some of his words were inaudible. The researcher did the first transcription. The recordings were then sent to a professional transcriber to transcribe, which was done to ensure that all transcription was as accurate as possible. Both sets of transcripts were compared to ensure accuracy and

completeness. After the reconciliation, the recordings were listened to again while reading through the transcripts. This added procedure enhanced the researcher's familiarity with the data before the analysis began.

Second, after transcription of the data, the coding was defined to find patterns, and then the categories were linked together to form larger upper categories and broader themes. The entire data set was classified, with the categories and their interrelationships being continually elaborated. Next, an evaluation of the initial themes was conducted, and overarching themes were developed as a result.

Thematic maps depicting overarching themes and sub-themes were then created after that process. The theoretical frameworks informed the interpretation of the data; hence this process was carried out with them in mind. The emerging themes were then evaluated to see if they were consistent with or inconsistent with earlier research studies focusing on a similar research problem.

### **Theoretical Frameworks and models used to analyse qualitative data**

***Research Objective: One:** To obtain the perceptions of accounting academics and students who aspire to be chartered accountants about the factors that have resulted in pervasive skills coming to the fore in the accounting profession.*

The Human Capital Theory (as discussed in the next chapter) was adopted to frame the understanding of the factors that have resulted in the prioritisation of pervasive skills in the accounting profession. Additionally, terminology from a model suggested by Samagaio and Rodrigues (2016) was utilized to present the themes that emerged from the data. The Samagaio and Rodrigues (2016) model uses the Human Capital Theory to understand the benefits of Human Capital to accounting (audit) firms and identifies five benefits of the HC to accounting firms. The Samagaio and Rodrigues (2016) Model proposes five benefits associated with human capital to accounting firms and the accounting profession, four of those were used to present significant themes in relation to this research question.

**Research Objective: Three:** *To obtain an understanding of the academic and non-academic factors that may promote/hinder the development of pervasive skills by accounting students.*

The Bronfenbrenner Bioecological Theory of Human Development (Bioecological Theory thereafter) was adopted to frame the understanding, presentation, and interpretation of themes revealed by the data collected to address this research objective. The discussion of the Bioecological Theory is provided in Chapter Four.

#### 2.14.2 Quantitative data analysis

After collecting back all the questionnaires, a manual check of each questionnaire was undertaken to determine if there were any missing data or outliers in their responses. Because the findings of incomplete data might be misleading, a missing value analysis can help address many issues. Anything beyond 10%, according to Hair (2009), indicates poor data integrity. The aim was to delete respondents who were missing more than 10% of their responses, but none of the respondents were missing more than 10%. However, there were instances where respondents failed to provide certain information. Cases with missing data were identified and processed using a case-by-case deletion method. Likewise, outliers were also manually investigated. According to Hair (2009), outliers are responses with features distinct from the other observations. Outliers must be identified and addressed because multiple regression is sensitive to them. There were no outliers found after thoroughly reviewing each questionnaire's responses.

All quantitative data collected was intended to address the following research objectives of this study:

**Research objective 2:** *To identify the selected pervasive skills that accounting students and academics perceive as important for entry-level employment in the accounting profession.*

**Research objective 4:** *To investigate whether a relationship exists between selected pervasive skills levels of accounting students and their work readiness.*

**Research objective 5:** *To investigate whether a relationship exists between the selected pervasive skills levels of accounting students and their academic performance.*

Quantitative data collected using questionnaires administered to third-year accounting undergraduate students was processed and analysed electronically. After concluding the

manual administration and first analysis of the questionnaire, the data was statistically analyzed using the Statistical Package for the Social Sciences (SPSS Statistics 25) version 25, a widely used software tool to analyse quantitative data. A professional statistician assisted in the analysis of the quantitative data.

Descriptive and inferential data was drawn from the data that was collected. Descriptive statistics was generated from the demographic data collected to obtain an overview of the sample and to determine central tendency. The descriptive statistics included mean scores, standard deviation, and frequency distribution. To determine the mean scores for continuous variables such as the age of students, the formula that was applied was:

$$\bar{X} = \frac{\sum x_i}{n}$$

The variance of the sample was calculated as:

$$s^2 = \frac{\sum X - \bar{X}^2}{N - 1}$$

The standard deviation of the sample was determined as:

$$s = \sqrt{\frac{\sum(x-\bar{x})^2}{n-1}}$$

## **Inferential Statistics**

According to Huysamen (1994), Inferential statistics draw inferences about the attributes of populations based on the outcomes of correctly selected samples from the populations. Mann Whitney U-tests, correlation, and regression were among the inferential statistics approaches utilized in this study, all of which were interpreted using p-values. A statement of statistical significance is required in the traditional method of reporting a result. From a test statistic, a p-value is calculated. A p-value of  $p \leq 0.05$  denotes a statistically significant result. In the results, these values are denoted by a \* and \*\*. Inferential statistics per research objective were generated in this investigation as follows:

### **Research objective Two:**

A Mann-Whitney U-test was used to analyse the responses of the two independent, unpaired samples from different populations, accounting academics and students. When determining if two sets of data from respondents are significantly different, the Independent Sample T-test (parametric test) /Mann-Whitney U-tests (non-parametric test) are utilised (Ziran, 2010). The goal of both tests is the same. In this study, the Mann-Whitney U-test was applied to compare the responses of the two samples regarding their perceptions of the pervasive skills required for entry-level accounting professional employment. The differences were compared using mean scores.

### **Research objectives Four and Five:**

#### ***Correlation analysis***

Correlation is used to describe the existence of an actual relationship between two variables. Additionally, correlation analysis establishes the relationship's direction, magnitude, and significance of data (Data and Using Descriptive Statistics Bartz, 1988). However, correlation does not imply causation (De Vos et al., 2011). Pearson correlation coefficients were utilized to explain the strength of the association between the variables. The strength of the association between two variables is indicated by [r] in a Pearson Product-Moment correlation. The Pearson correlation is appropriate when the variables are believed to be roughly regularly distributed. Pearson's Product Moment Correlation measures the strength of a relationship and the direction of association between the variables being tested. As previously indicated, the p-value reflects how statistically significant the correlation is. Findings with a p-value of less than 5% ( $p \leq 0.05$ ) are considered statistically significant, whereas those with a p-value greater than 5% ( $p \geq 0.05$ ) are considered statistically insignificant. However, even a very weak correlation can be statistically significant depending on the sample size, and if the sample size is too small, even a very strong correlation may not be statistically significant.

A coefficient value (r) was determined using the formula shown below. The coefficient value (r) may range between -1.00 and 1.00. Table 2.11 below shows the varying levels of correlation as suggested by Data (1988). As can be seen in Table 2.11, a coefficient value (r) of 1 signifies a perfect positive correlation between the variables being tested, a coefficient value (r) of -1 indicates a perfect negative correlation, and a 0 value signifies no relationship (null hypothesis)

between the tested variables. Positive correlations denote a relationship that indicates movement in the same direction: when one variable increases, the other increases as well; conversely, when one variable decreases, the other decreases as well. Negative correlation, on the other hand, refers to a relationship that moves in the opposite direction: as one variable rises, the other falls; similarly, as one variable falls, the other rises (Data and Using Descriptive Statistics Bartz, 1988). Negative correlations are denoted with a – sign before the value.

**Table 2.11 Correlation: Degree of association**

Value of r	Correlation
0	No correlation
Between 0,01 and 0,19	Very low positive correlation
Between 0,20 and 0,39	Low positive correlation
Between 0,40 and 0,59	Moderate positive correlation
Between 0,60 and 0,79	Strong positive correlation
Between 0,80 to 0,99	High positive correlation
1	Perfect correlation
Between -0,01 and -0,19	Very low negative correlation
Between -0,20 and -0,39	Low negative correlation
Between -0,40 and -0,59	Moderate negative correlation
Between -0,60 and -0,79	Strong negative correlation
Between -0,80 to -0,99	High negative correlation
-1	Perfect negative correlation

The statistical formula (manual) for the calculation of Pearson’s Product Moment Correlation is:

$$r = \frac{N \Sigma(XY) - (\Sigma X)(\Sigma Y)}{\sqrt{[N \Sigma X^2 - (\Sigma X)^2][N \Sigma Y^2 - (\Sigma Y)^2]}}$$

In this study, SPSS was used to compute regression statistics.

### **Regression analysis**

Regression analysis was conducted after the correlation analysis using SPSS after it was determined through correlation analysis that a relationship exists between the study variables.

According to Field (2009), regression analysis allows researchers to estimate future outcomes based on predictor variables.

### **The variables**

It is vital to note that in the regression analysis, three categories of variables were dealt with: dependent variables, one independent variable, and various control variables. The dependent and control variables differed according to the two regression models (see Figures 2.6 and 2.7 below).

### **Multivariate analysis**

To predict the behaviour of numerous independent variables as well as dependent variables, a multivariate regression method is used. More specifically, it is a method for determining how linearly related the different independent variables and dependent variables are to one another. The correlation between the variables—all of which were shown to be connected in this study—is what causes the relationship to be described as linear. Therefore, multivariate regression aims for a formula that can describe how variables react simultaneously to changes in other variables. The fundamental concept of linear regression models, which only include one response variable, is expanded to include many response variables in multivariate regression models. We can comprehend and examine coefficients across outputs with the aid of the multivariate model. They can be applied in a variety of contexts, including the field of education.

In addressing the fourth research objective which focused on the relationship between the five selected pervasive skills (communication skills, critical thinking, decision-making, problem solving and stress management) and the work readiness of accounting students, multivariate analysis was undertaken. Multivariate regression was undertaken to understand the influence of the five pervasive skills and overall work readiness and univariate regression was undertaken to investigate the relationship between the five pervasive skills and each scale of work readiness: personal characteristics (PC), organisational acumen (OA), work competence (WC) and social intelligence (SI).

## **Multiple Regression analysis**

Multiple regression analysis is a statistical technique used to assess the strength of the relationship between an outcome (the dependent variable) and several predictor variables, as well as the significance of each predictor to the relationship, often with the effect of other predictors statistically eliminated (Petchko, 2018). Multiple regression is appropriate in research studies where the research questions focus on the relationship between two or more independent variables with one dependent variable (Kerr et al., 2002). There are three types of multiple regression; standard, hierarchical and statistical (stepwise and setwise) (*ibid*).

Multiple linear regression analysis was used in this study to address the fifth research objective. A regression analysis was used to determine the percentage of variance in accounting students' academic performance (dependent variable) that may be attributed to their levels of the selected (pervasive skills: communication skills, critical thinking, decision-making, and problem solving) pervasive skills (independent variables). Multiple linear regression was undertaken for the purposes of this research objective since there was one dependent variable and several independent variables.

## **Control variables**

Control variables have been tested before on the phenomenon by other scholars that may influence a change in the dependent variables under study. The inclusion of the control variables in the regression models aims to minimize the effects of confounding variables on the dependent variables. The control or mediating variables (*z* variables) have been theoretically determined through a literature review and were factored in the regression models; only those with theoretical relevance were included in the regression models.

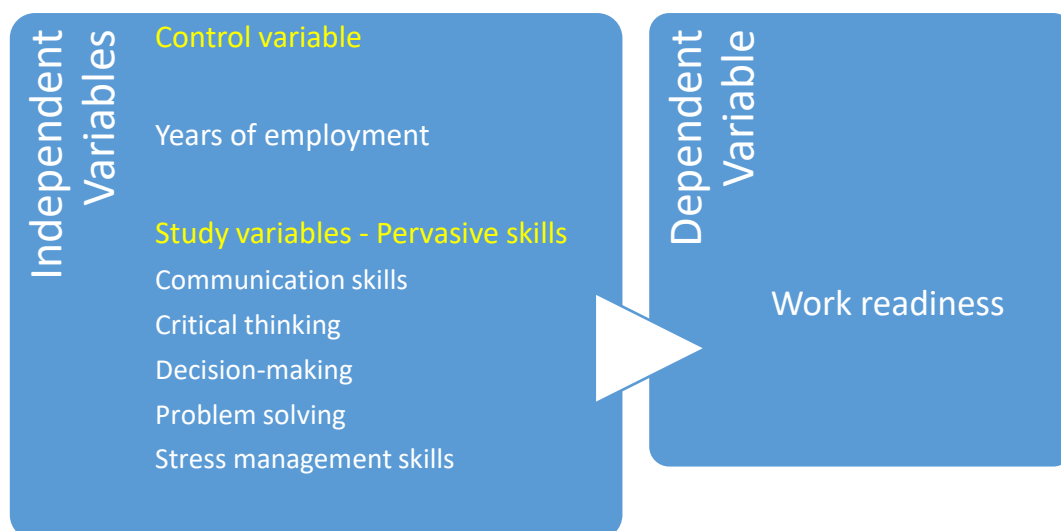
## ***Regression Model 1***

The control variable for **Work-readiness** was determined based on its theoretical significance as indicated in the following research studies: working experience: *Years of employment* (Dean et al., 2010; Doe, 2015; Putriatama et al., 2016).

## ***Regression Model 2***

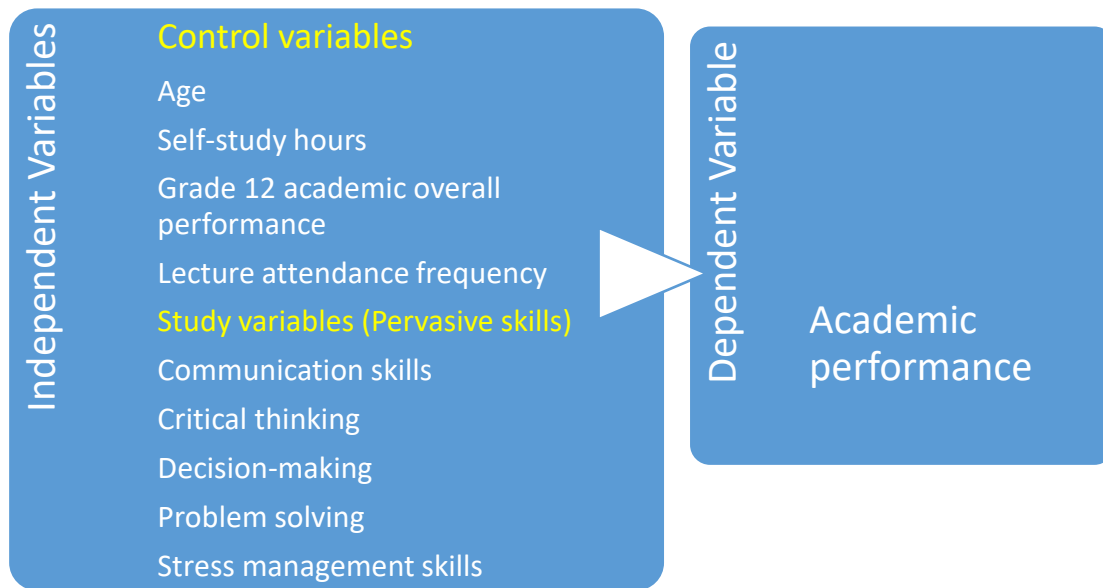
The control variables for **Academic performance** were determined based on their theoretical significance, as indicated in the following research studies: **age** (McKenzie and Schweitzer, 2001; Momanyi et al., 2015; Navarro et al., 2015; Pellizzari and Billari, 2012; Voyles, 2011); **self-study hours** (Andrietti and Velasco, 2015; Culler and Holahan, 1980; Fouché, 2017; Nonis and Hudson, 2010; Ukpong and George, 2013); **Grade 12 academic overall performance**: (McKenzie and Schweitzer, 2001; Papageorgiou, 2017; Sibanda et al., 2015; Thiele et al., 2016; Yigermal, 2017) and **lecture attendance frequency** (Andrietti and Velasco, 2015; Paisey\* and Paisey, 2004; Steenkamp et al., 2009; Thatcher et al., 2007).

The following figures (Figure 2.6 and Figure 2.7) indicate the control variables for each of the regression models (Regression Model 1 and Regression Model 2), addressing research objectives 4 and 5, respectively:



**Figure 2.6 Regression Model 1: Research objective 4**

**Source: Self-generated**



**Figure 2.7 Regression Model 2: Research objective 5**

**Source: Self-generated**

### 2.15 Ethical considerations

Ethical considerations were observed throughout the entire research process. Ethical clearance was sought from the higher education institution where data was collected. The goal is to respect research participants, their views, and their identities. Care was taken to ensure that participants remained anonymous and that their views were not divulged to any other party. Informed consent was sought from all participants. The aims and objectives of the study were indicated in the consent letter signed by all those who were willing to participate in the study. Completed questionnaires were not accessible to members outside the research project; these were locked away in an access-controlled location.

Permission was sought to record the focus group interviews, and participants were asked not to identify themselves or provide personal information that could identify them during the recorded interviews. No minors were involved in the study, as they may have a limited understanding of the implications of their participation. The research study was conducted in a language that all participants understood to avoid a lack of understanding. The research did not require participants to answer embarrassing questions, and the researcher did not put any participants in an unfavourable situation. The principles of honesty, respect, and openness were upheld at all stages of the research.

## 2.16 Chapter summary

Chapter two presented a comprehensive discussion on the research design and methodology applied to conduct this study. Additionally, it outlined the paradigm that guided the study and the case study approach employed. The justification for selecting and using the data generation methods and tools was also discussed. The methods employed to sample study participants were discussed. The purpose and process adopted to validate the data collection instrument used to conduct the survey were described. Hence, the validity and reliability of data collection instruments were discussed in terms of the quantitative aspect. In terms of the qualitative aspects of the study, trustworthiness and rigour were discussed.

Furthermore, the study undertaken to pilot the data collection instruments was described. The justification and choice of data analysis undertaken on qualitative and quantitative data collected were then provided. The chapter concluded with a discussion on the ethical considerations that were taken into account in this study.

The next chapter will discuss the Human Capital Theory as a framework underpinning the first research question focusing on factors or drivers of change that could have resulted in pervasive skills coming to the fore in the accounting profession. A literature review on this question will thereafter follow.

## CHAPTER THREE

### BACKGROUND, DRIVERS OF CHANGE, AND IMPORTANCE OF PERVASIVE SKILLS IN ACCOUNTING

#### 3.1 Introduction

The aim and purposes of the study were to investigate the factors that have resulted in pervasive skills coming to the fore in the accounting profession and to explore the factors that enable/hinder the development of these skills from the perspectives of two stakeholders in accounting; the accounting students and academics. Furthermore, it sought to identify the pervasive skills ranked highly for entry-level professional employment by the same participants. Lastly, the study sought to establish whether a relationship exists between pervasive skills levels of accounting students and their work readiness and academic performance.

The previous chapter – Methodology, explained the research process followed in this study. This chapter focuses on the first research question, which qualitatively investigated the factors that resulted in pervasive skills coming to the fore in the accounting profession. The Human Capital Theory (HCT) was adopted as a theoretical framework underpinning this qualitative investigation designed to address the first research question. Hence, this chapter presents an overview of the HCT and a review of the literature on the subject of human capital with specific reference to pervasive skills. Next, a review of the conceptualization of pervasive skills and current debates on the factors that have resulted in pervasive skills and attributes coming to the fore in the accounting profession. More specifically, this research question's theoretical foundation is found in the junction between human capital theory and the call for more focus on pervasive skills in the accounting profession. Lastly, the presentation, using the Samagaio and Rodrigues 2016 Model and discussion of findings in relation to this research question is provided.

#### 3.2 Theoretical Framework: Human Capital Theory

##### 3.2.1 History of the framework

The HCT was first presented in the 1950s, and scholars from the Chicago School of Economics, such as Theodore Schultz and Gary Becker, developed its conceptual framework. Gary Becker formally created the HCT in his book 'Human Capital' in 1964 (Torraco and Swanson, 1995).

Back in 1964, Schultz noted how the income of the United States had been expanding at a significantly “faster rate than the combined amount of land, man-hours worked, and the stock of replicable capital utilized to produce the income,” and he attributed that to increases in investments in human capital (Schultz, 1961).

The early stages of the HCT were not without difficulty, as early economists believed it was inappropriate to assign a monetary value to human beings since doing so reduced persons to capital goods (Schultz, 1961). Even some liberal academics opposed the term "human capital" at that point because of its negative associations with slavery.

### 3.2.2 Definition of the framework

There are many definitions of the HCT, from the original definition provided by Schultz (1961) to more recent definitions, most of which have been criticized for considering a person as just merely a production unit or ‘thing to make money.’ Becker (1962) defined human capital as "activities that impact future real income through the imbedding of resources in people" in his early writings, referring to it as "activities that influence future real income through the imbedding of resources in people" (Becker, 1962:9). This study subscribes to a more recent definition of the HCT ‘as investing in both formal and informal education and training, which provides and enhances individual productivity by providing knowledge, skills and attitude and motivation necessary for economic and social development’ (Woodhall, 1985).

According to Kuzminov et al. (2019), the Human Capital Theory's authors believed that a formally defined level of education was equivalent to the actual body of economically valuable knowledge and skills. Critical thinking skills, communication skills, basic literacy, and arithmetic, for example, were among the abilities that enhanced individual output across the entire workforce when taught in the educational environment. “General human capital” was the name given to this component. “Certain human capital,” on the other hand, refers to abilities needed for specific jobs and taught in a specialized academic context, as well as skills obtained either on the job over years of experience or through education (Becker, 2009).

### 3.2.3 Description of the HCT framework

Various views and interpretations of the HCT are available in academic literature. These views and interpretations vary according to periods, contexts, epistemologies, and fields of study.

Despite that, the central proposition of this theory seems to be that people are considered a form of capital for development (Engelbrecht, 2003) and that the manner in which they apply their knowledge and skills, which in turn enhances productivity and competitiveness, ultimately creates value (Holmberg-Wright and Hribar, 2016). Training in pervasive (soft) skills gives a return on investment in the form of productivity; according to Potelienė and Tamašauskienė (2013), education, on the other hand, boosts the value of human capital. Others believe that the HCT refers to a person's bank of knowledge or innate/acquired attributes that help him or her be more productive economically (Garibaldi, 2006). Given today's economic and labour market trends, most scholars and professionals now agree that the human being, not natural resources or physical or financial wealth, is the driving force behind socio-economic growth (Kuzminov et al., 2019). From the definition and description of this framework, one can deduce that human capital is made up of skills, knowledge, and practices that enable individuals to generate income and other advantages for themselves (such as securing employment, succeeding in a profession, and achieving high earnings), their employers (through increased productivity, succeeding in a competitive market and offering best services to clients), and society as a whole (in addition to the initial investment and operational expenses).

#### 3.2.4 Use of the HCT in research studies

This theory has been used in many research studies and fields to understand the value of skills, competence, and attributes expected by employers from their employees, thereby increasing the employee's marketability as a unit of productivity. According to researchers using the human capital hypothesis, society benefits from investing in people through professional empowerment through skills and knowledge obtained through education and training (De Jong, 2015).

Simply stated, this theory provides one way of understanding what makes a unit of productivity more desirable to employers who seek to gain from the employees' technical competence and generic skills/attributes for more productivity in the workplace. In other words, employers benefit financially from skills since they play a significant role in assisting the organization in operating profitably (Kwon, 2009). Moreover, it has been said that businesses' financial stability depends on the efficient use of human capital assets and the grasp of how employees' business expertise and customer relationships interact with those in leadership positions (Fox

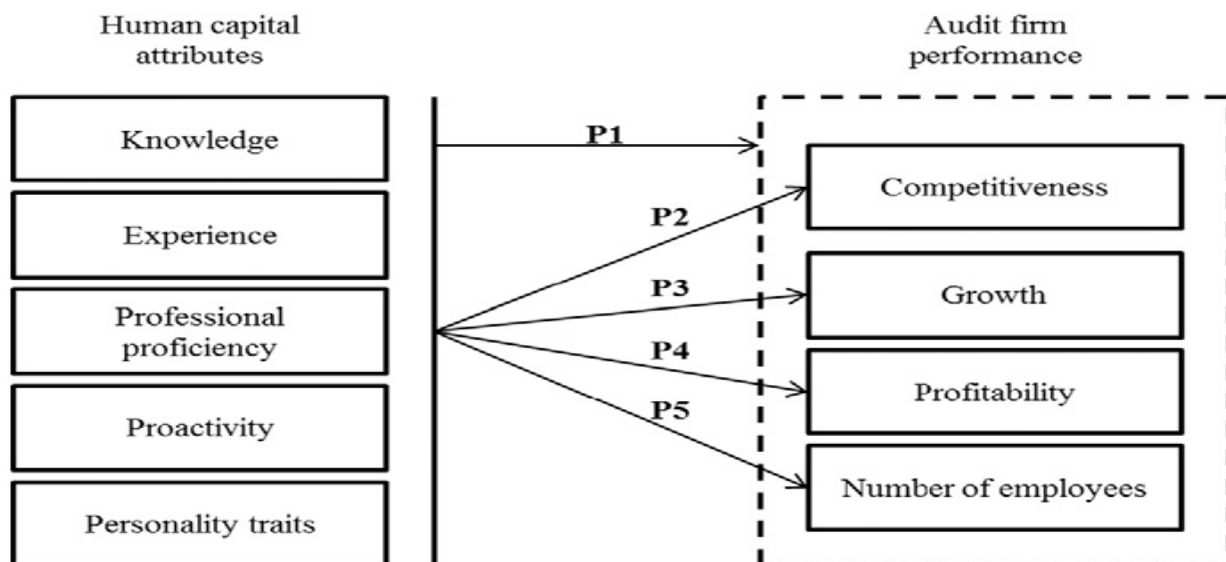
and Royle, 2014). Accordingly, wealth and business success depends on the organizations' ability to recruit the right employees (Holmberg-Wright and Hribar, 2016). In the same way, if a company increases its human capital through skills, the chances of its success also increase – a return on investment (Bapna et al., 2013).

### 3.2.5 Justification: Use of the Human Capital Theory and Samagaio and Rodrigues's 2016 Model

Following this theory, education and development are considered deliberate investments that prepare the labour force for the productivity of individuals and organizations, thus encouraging the growth and development of the overall economy. As a result, many employers, particularly accounting/audit firms, prefer to have adequately prepared (in terms of skills, knowledge, attributes/traits) accounting graduates in their employment.

This study also adopted concepts from Samagaio and Rodrigues's 2016 Model, which the Human Capital Theory also framed. The 2016 study by Samagaio and Rodrigues, which resulted in the proposal of a model used in this study to name the themes and to endorse the critical importance of pervasive skills in the accounting field, sought to investigate the relationship between accountants (auditors)' human capital qualities and the outcomes of young audit firms. Samagaio and Rodrigues's (2016) study demonstrated numerous variations of human capital qualities that contribute to the overall accounting (audit) firm's success, demonstrating the value of human capital qualities in the accounting profession.

The reasons accounting/audit firms would prefer candidates with adequate pervasive skills and knowledge, as suggested by the HCT, are provided by Samagaio and Rodrigues's (2016) Model. Samagaio and Rodrigues's (2016) model has five prepositions: P1 to P5, all proven valid as confirmed by their study results. Figure 3.1 below shows the model and the five propositions.



**Figure 3.1: Samagaio and Rodrigues Model**

### **Propositions of the Samagaio and Rodrigues Model**

**Proposition 1.** Human capital attributes are present or absent when young audit firms' performance outcomes occur.

**Proposition 2.** Different combinations of human capital attributes affect the competitiveness outcome of young audit firms.

**Proposition 3.** Different combinations of human capital attributes affect the growth outcome of young audit firms.

**Proposition 4.** Different combinations of human capital attributes affect the profitability outcome of young audit firms.

**Proposition 5.** Different combinations of human capital attributes affect the number of employees' outcome of young audit firms.

**Source: Samagaio and Rodrigues (2016:5355)**

As previously stated, this study employed concepts from Samagaio and Rodrigues's (2016) Model to frame the results in relation to the research question addressed in this chapter. This model was chosen because it demonstrates the importance of accounting staff having these all-encompassing (pervasive) skills for the entire performance and growth of employer organisations (specifically, audit firms) through its propositions. Furthermore, the assertions made under this model are congruent with the basics of the HCT, which was used as the theoretical framework for this qualitative inquiry to answer the first research question.

It would seem, according to the HCT and the Samagaio and Rodrigues 2016 Model, that the benefits of having accounting professionals with the appropriate knowledge and skills are beneficial to the profession, employers (more specifically, audit firms as suggested by the

Samagaio and Rodrigues 2016 Model), professional bodies, and accounting academics, seeing that they all share a common goal to advance the accounting profession.

By all means, the assumption under the HCT is that if individuals invest in education, which ought to focus on both technical and pervasive skills, that should improve the human capital and hence, contribute to the growth of the economy (Spring, 2015), and growth in audit firms (Samagaio and Rodrigues, 2016). Correspondingly, Higher Education can improve human capital by producing graduates with the necessary pervasive skills and hard skills (Knight and Yorke, 2003). In fact, according to the HCT, the main goal of education is to improve economic growth instead of promoting social justice, environmental improvement, and other goals (Spring, 2015).

It would seem that educational institutions attract prospective students by frequently stressing the relevance of higher education in advancing one's job prospects, encouraging them to commit their effort, money, and time studying to gain better employment, and supporting the HCT. Also, the concern for enhancing employability through an added focus on skills in professional qualifications represents a component of human capital theory (Yorke, 2006)

Harris et al. (2015) argue that employees' human capital is workable and should develop in value as they progress along their professional path, regardless of where they are in their careers (entry-level to senior management). This line of thought suggests that employees would benefit from continuing professional development in areas they could be lacking and would invest in education and training. Such an argument is consistent with the HCT since it predicts that people will continue to invest in their education until the expense of doing so outweighs the potential advantages of particular employment (Walters, 2004).

Essentially, the HCT perceives education as an economic activity because skills and education learned are to be utilized in economic activity (Spring, 2015). To repeat, HCT contends that education elevates an individual's productivity and earnings, making it an investment critical for individuals and a country's economic advancement. Because of the necessity to invest in education to reap the benefits of human capital, formal education spending in developed countries has increased significantly (Roser and Ortiz-Ospina, 2019), leading to growth in high-income countries. Middle-income countries have experienced similar growth rates (World Bank, 2017).

In South Africa, we have seen widened access and participation in the post-school sector (including universities). The widened access is often termed ‘massification.’ According to Gumport et al. (1997), massification is an exceptional growth in education. In other words, ‘massification’ includes providing education to a larger populace (especially those who previously did not receive it). According to Williams et al. (2003), the growth of higher education is a societal response to the expanding need for knowledge workers, with increasing corporate and private investment in human capital. In addition to the widened access, the government’s investment in the post-school sector has increased over the years. For instance, by 2012/2013, government spending on this sector was equal to 1.4% of the GDP, and by the period 2016/17, the investment in education by the government in terms of this sector had risen to 1.5% of the GDP (DHET, 2018).

Under this theory, it is assumed that a person invests in self-development to maximize his/her financial interest by securing employment associated with high earnings potential (Tan, 2014). Given that one of the critical ideas of human capital theory is that an individual’s earnings are determined by their productive ability, which is determined by their skills and knowledge (Sidorkin, 2007; Becker, 2009), such an argument may prove valid. In fact, it has been argued that an individual with an externally defined and mismatched skill set is highly improbable to secure well-paying employment and may risk ending up unemployed (Kuzminov et al., 2019). In most countries or settings, particularly in this technologically advanced period, the mismatch between skills and competencies within the workforce and the needs of a business world and other macroeconomic requirements exacerbates the dilemma. In order to remedy the situation, a better alignment of the competencies and skills within the workforce with those expected by the industry, employers, and even other stakeholders such as professional bodies is necessary.

Concerning this study, securing a job in accounting is believed to be linked with high earnings potential. Internationally and locally, the accounting field is associated with the possibility of high earnings. An international example is a survey conducted in the United States that concluded that accounting graduates earn 40% more than those with a degree in the Arts, Psychology, and Social Work (Young et al., 2018). Given this, it would not be far-fetched to assume that some accounting students opt for a career in the accounting field because of the perceived earnings potential. It is also possible that accounting students would want to equip themselves with the skills and attributes (acquired through formal and informal education) that employers are calling for to increase their employability prospects and earnings potential. Then

again, knowledge, which is one of the most significant capital factors in a fiercely competitive environment, should be accurate, relevant, easily comprehended, meaningful, reliable, impartial, comparable, and provided in a timely manner during the decision-making process for it to be valuable (Özpeynirci et al., 2013).

However, this theory has attracted a wide range of critics. Others argue that the direct link between a skilled workforce and earnings; they suggest that this direct link has become less clear in recent years. For instance, the absence of a skilled workforce is not to blame for the terrible circumstances that followed the 2008 economic crisis; unskilled labour was and is not exempt from redundancy (Anastasiou, 2021). As a result, Becker's theory that unemployment rates tend to be inversely associated with the amount of competence is contradicted (Becker, 1962). Also, in contrast to the human capital viewpoint, critical research contends that increasing one's educational qualifications adds no value to one's human capital but maintains one's status in the economic and social system (Morrison, 2014; Tomlinson, 2017).

### 3.3 Conceptualization of skills and pervasive skills

The term 'skill' may be defined in many ways. This study subscribes to Bratianu and Vatamanescu's (2017:5) definition: "A skill stands for the capacity of performing a certain task or activity based on an integrated knowledge content, coming from direct experience and from a mediated learning process."

Similarly, pervasive skills are defined, understood, and conceptualized in many ways by various scholars in various literature. Most of these definitions are discipline-specific and show that there is no single, global meaning of pervasive skills. Vijaylakshmi (2016:2860) defines pervasive (soft) skills as "a collection of personal, positive attributes and competencies that enhance a person's relationships, job performance and value to the market." Other scholars, however, conceptualize pervasive skills as emotional traits, associating these with the individual's emotional intelligence, a cluster of personality traits including personal habits, emotional empathy, and social graces (Nadziakiewicz, 2016).

The definition of pervasive skills tends to differ as various disciplines, countries, and educational sectors define these skills according to their own needs (Kechagias, 2011). Pervasive skills, as referred to in the SAICA Competency Framework, a framework that was first issued in 2008 and has since been revised (Strauss-Keevy, 2014), are also referred to as basic skills, soft skills, applied skills, key skills, generic skills, core skills, essential skills or

employability skills (Nasir et al., 2011; Taylor, 2016). The absence of a widely accepted definition has also led to different scholars classifying pervasive skills differently. Gibb (2003) categorizes pervasive skills into a) fundamental or basic skills, b) people-related skills, c) thinking or conceptual skills, d) personal skills/attributes, and e) community skills and business skills. Moreover, Nadziakiewicz (2016) outlines that pervasive skills are characterised by a combination of traits and other cognitive skills and are critical to a successful career in accounting.

Vijaylakshmi (2016) categorizes pervasive skills into interpersonal and intrapersonal skills, with interpersonal skills indicated as the noticeable skills that tend to indicate one's ability to manage his feelings, actions, and those of others, and intrapersonal skills indicating one's feelings, emotions, and thoughts. Robles (2012) argues that pervasive (soft) skills are a combination of interpersonal (or people) skills and personal (or career) attributes, people skills influencing one's ability to interact with others with respect and a positive attitude. On the other hand, career attributes include skills such as teamwork and effective communication.

Pervasive skills are most commonly referred to as generic skills. "A skill is regarded as generic if observers see a skill manifested by different people in many different contexts. It is transferable if an individual who demonstrates the skill in one context can apply it in others" (Curtis, 2004:141). These skills, also called employability skills, are expected to assist accounting students in the job-seeking process (Levant et al., 2016). Employability skills include qualities such as resourcefulness, flexibility, and adaptability (Bee and Hie, 2015). These skills may also be perceived as the emotional intelligence quotient of an individual (Choudary, 2014). On the negative side, Willcoxon et al. (2010) referred to pervasive skills as the "muddied waters of competencies and attributes" because of the varied and sometimes confusing phrases used to refer to them. According to Nadziakiewicz (2016), Pervasive skills are characterized by a combination of attributes and other cognitive skills, which are essential for a successful accounting professional career.

Despite the different definitions and views about pervasive skills, it is clear that they all have a common outcome, that of learning, enhancing personal growth, and aiding in the achievement of employment and career success (Gibb, 2014). In this study, the term used throughout the study is pervasive skills unless when quoting directly from another study. Table 3.1 below shows the different qualities, values, and attributes identified by different scholars as pervasive skills

**Table 3.1: List of soft (pervasive) skills according to different literature sources**

Skill	Bee and Hie (2015)	Robles (2012)	Kechagias (2011)	Mandias et al. (2014)	Azim et al. (2010)	Vijayala kshmi (2016)	Hussein (2017)	Kavanagh and Dremann (2008)
Written communication	✓	✓	✓	✓	✓	✓	✓	✓
Oral communication and Listening skills	✓	✓	✓	✓		✓	✓	✓
Professionalism		✓	✓		✓	✓		✓
Problem-solving				✓		✓	✓	✓
Critical thinking				✓		✓	✓	✓
Technology skills	✓						✓	
Lifelong learning	✓			✓				✓
Research skills							✓	✓
Leadership				✓	✓		✓	✓
Stress management/ability to work under pressure		✓	✓	✓	✓	✓	✓	
Positive attitude		✓				✓		
Negotiation					✓			✓
Teamwork	✓			✓	✓	✓		✓
Emotional intelligence						✓		
Decision-making				✓			✓	
Self-management						✓		✓
Work ethic/integrity		✓	✓		✓			✓
Responsibility			✓			✓		
Time management				✓			✓	

*Adapted from Taylor (2016:4) (Revised)*

The SAICA Competency Framework indicates that entry-level chartered accountants are expected to display the highest proficiency in pervasive skills (SAICA, 2010:19). The SAICA Competency Framework identifies pervasive skills, which are categorised as Ethical behaviour, professionalism (IA), Personal attributes (IB), and Professional skills (IC), that aspiring chartered accountants should possess prior to entry into the profession (SAICA, 2014a; SAICA, 2016a).

Of the three sets of skills, SAICA, through a Detailed Guidance Document for Academic Programme issued in 2010, indicates that academic programmes offered in accounting by SAICA accredited institutions should focus on IA and IB. Twelve pervasive skills are identified from the descriptions supplied under these categories, which accounting graduates must exhibit: oral communication, listening communication, written communication, strategic thinking, time management, critical thinking, problem-solving, teamwork, the ability to influence, leadership, professionalism, and ethical awareness (SAICA, 2014a). The academic programme must address all pervasive skills it deems appropriate for inclusion, but it must also provide complete justification for eliminating any of the skills. The incorporation of pervasive skills is critical as these skills are examinable in the SAICA's Initial Test of Competence shortly after completion of the academic programme at a proficiency level that is considered reasonable for aspirant CAs who have fulfilled the academic programme requirements and are about to resume the training and professional programme.

From an international perspective, in Australia and New Zealand, the areas that attract focus, particularly in the accreditation process of accounting programmes, are, according to Dunbar et al. (2016:10).

- **Intellectual skills** enable a professional accountant to solve problems, make decisions and exercise good judgment in complex organisational situations.
- **Technical and functional skills** consist of general skills as well as skills specific to accountancy.
- **Personal skills** relate to the attitudes and behaviour of professional accountants. Developing these skills helps individual learning and personal improvement.
- **Organisational and business management skills** have become increasingly important to professional accountants.

- **Interpersonal and communication skills** enable a professional accountant to work with others for the common good of the organisation, receive and transmit information, form reasoned judgments and make decisions effectively.

### 3.4 Key stakeholder groups in accounting

There are various stakeholders in accounting, each involved directly or indirectly in producing accounting graduates that meet the demands of the profession and business. Interactions between these stakeholders influence the accountants' academic and professional preparation through education and training. Equally, these stakeholder groups are thus directly or indirectly involved in determining the desired accounting graduate attributes. The following parties/structures, some international and others local, are considered essential stakeholders in accounting.

#### 3.4.1 Main regulatory body: IFAC

Globally, international and national professional bodies regulate the accounting profession. One of the major international professional bodies is The International Federation of Accountants (IFAC), the highest regulatory body in the profession is a global organization that represents the accounting profession and serves the public interest. According to the IFAC, 'public interest' refers to accountants' commitment to various stakeholders, including businesses, clients, employees, employers, financial communities, governments, lenders, and any other party who relies on the work of chartered accountants (IFAC, 2006). This organization, which seeks to strengthen the accounting profession, comprises 175 member bodies representing 130 countries worldwide (IFAC, 2018). The IFAC has gained international recognition and combines many elements of the worldwide accounting profession to create a prominent, unified and authoritative voice (Carnegie and O'Connell, 2012). This regulatory body aims to protect the public interest by ensuring that accounting practices are of a high-quality standard. Through its three boards: the International Accounting Assurance Standards Board (IAASB), the International Education Standards Board (IESB), and the International Assurance Education Standards Board (IAESB), the IFAC sets accounting standards such as the International Accounting Standards (IASs) and auditing standards, the International Standards on Auditing (ISAs).

Included in the member bodies are professional bodies regulating the accounting profession in South Africa, such as the South African Institute of Chartered Accountants (SAICA) and the

South African Institute of Professional Accountants (SAIPA), and internationally includes professional bodies such as the Association of Chartered Certified Accountants (ACCA) and Chartered Institute of Management Accountants (CIMA).

For this study, the local professional body focused on is the SAICA since the study focuses on accounting students aspiring to be chartered accountants.

### 3.4.2 Professional bodies

Another main stakeholder in the accounting profession is professional bodies, which are also part of the IFAC. The local professional bodies centralise organizational codes of best practice at the industry level and establish codes of conduct and ethics. With specific reference to the preparation of aspirant chartered accountants, professional bodies determine what is covered in accounting professional degrees through the accreditation process. In South Africa, SAICA, as a regulatory body for chartered accountancy, regulates the content of the academic and training programmes to be mastered before a prospective member may be allowed as a SAICA member. Because of differences in language, culture, social, and educational systems, the IFAC permits its member bodies to structure their qualification models as long as they are linked with the competencies of this body (IFAC, 2017a). With this in mind, the SAICA established its framework rather than replicating the IFAC's. Also, through the accreditation process, the SAICA gets to endorse what is offered in accredited accounting courses to produce graduates who will meet the profession's demands (Stone et al., 2013). With this in mind, many South African universities that provide SAICA-recognised accounting programmes aspire to achieve and sustain accreditation for their academic programmes, and as part of that, they must comply with the professional body's Conceptual Framework. Be that as it may, some argue that in as much as professional bodies accredit accounting degree programmes, such accreditation does not guarantee the professional work readiness of the graduates (Willcoxson et al., 2010). In addition, Watty (2005) concluded that academics in accounting perceived accounting education to be compliance-driven and substantially mandated by accreditation requirements of professional accounting bodies in a study of academics from Australian universities.

Indeed, professional bodies play a significant role in the regulation of the accounting profession. These statutory bodies are responsible for various duties, including; setting the admission criteria into the profession, setting up rules of education and training (including

devising standards for accounting curricula and how the curricula are delivered), and regulating the conduct of members of the profession.

Notwithstanding that they all draw from the same international standards and are also members of the global regulatory body, the IFAC, there are variations in the monitoring functions of these bodies around the world (Helliari, 2013).

### 3.4.3 Professional firms (Accounting firms)

Another critical group of stakeholders in the accounting profession comprises professional accounting/auditing firms. These firms serve as employers for many accounting graduates who enter into a training programme, a necessary programme for becoming chartered accountants, specifically, those who enter into Training In Public Practice (TIPP). The majority of accounting graduates enter the TIPP training programme (SAICA, 2008). Accounting graduates entering the training programme may enter into TIPP or Training Outside Public Practice (Topping) training contracts. The TIPP route provides training at an audit firm of Registered Auditors and Accountants (RAA), while the TOPP route involves training at an Approved Training Organisation (ATO) in commerce and industry. Large businesses such as Investec, Shoprite Checkers, FirstRand, Edcon, Eskom, IDC, SARS, MTN, Nedbank, Sasol, Standard Bank, and many others frequently provide TOPP (SAICA, 2008).

The accounting firms are divided into three groups: small, medium, and large, and training takes place in each of these categories. Also, some audit/accounting firms have a global scope while others operate in their respective countries or regions. Small firms are typically community-based and take a very personal approach to clients, primarily individuals and entrepreneurs. Medium firms serve a very similar client profile to small firms, but they have a national network of offices and are thus better positioned to serve larger clients due to their national coverage. The so-called "Big 4" auditing firms account for most large firms (Coetzee and Oberholzer, 2009).

Following a number of mergers amongst key professional firms and the collapse of one of the leading firms, Arthur Anderson, between 1989 to 2006, the number of the key professional firms was reduced from eight to four. The original eight key professional firms were: Price Waterhouse and Touche Ross; Haskins and Sells; Deloitte; Ernst and Whinney; Arthur Young; Peat Marwick Coopers and Lybrand and Arthur Andersen. After the mergers, the Big 4

professional firms were established: Klynveld, Peat, Marwick, Goerdeler (KPMG), Ernst and Young, PricewaterhouseCoopers, and Deloitte (Pong and McMeeking, 2007). Today, this group of powerful and big professional firms, the Big 4, operate worldwide and have been argued to have political and economic influence as well as industry concentration (Bengtsson, 2011) and given that, the current debate about mandatory audit firm rotation (MAFR) has intensified (Wesson, 2021). Notwithstanding that, large accounting firms are beneficial in terms of graduate development as they have a team-oriented working atmosphere that exposes students to increasingly complex transactions (Joubert et al., 2009).

The training programme, run in professional training offices (audit firms), is required to provide work experience to trainee accountants by exposing them to different professional work assignments (SAICA 2015b). To ensure that this responsibility is undertaken according to the professional body's requirements - SAICA, the Training offices must satisfy the accreditation requirements outlined in the SAICA training regulations. These offices are also expected to provide the requisite breadth, depth, and quality training and experience for aspiring Chartered Accountants (SAICA, 2016b). Correspondingly, the trainees' skills and knowledge are to be refined during their training period.

Aside from the mandatory skills, extensive experience in at least one of the five prescribed elective skills, including financial management, management decision-making and control, auditing and assurance, risk management and governance, and taxation, should be provided to trainees (SAICA, 2016b). Furthermore, except for the one prescribed elective or selected area of speciality, which in general would be auditing and assurance for trainees in auditing firms, the remaining four areas are residual skills (Warffemius et al., 2015), and trainees simply require minimal exposure to these areas as specified by the professional body (SAICA, 2016b). Given the nature and significance of the responsibility of the training offices(firms), a firm ought to have a written policy set to provide for 'on-the-job' training, an acceptable mechanism to assess trainees' academic progress, as well as provide appropriate counselling to create a suitable training atmosphere (Coetzee and Oberholzer, 2009).

#### 3.4.4 The academic programme (Including academics)

One of the academic programme's (accounting education's) key objectives should be to provide students with comprehensive, clearly defined, and relevant accounting knowledge and

skills. Given that, this critical stakeholder influences how the knowledge, skills, and attributes determined by the field's professional bodies are delivered, instilled or acquired through the curriculum (Perrin and Laing, 2011). According to Botha (2001), this programme enhances a person's (the accounting students') capacity to apply concepts and principles of technical knowledge, capabilities, and professionalism in a manner that is conducive to continued professional development. In general, the academic programme (also referred to as accounting education in this study) seeks to educate the person getting accounting training in the determination, gathering, processing, accuracy verification, and synthesizing of valuable information for business and decision making, as well as to enhance the individual's abilities in the use of this information (Derekoy, 2019). The academic programme is also tasked with ensuring that the prescribed pervasive skills outlined in the SAICA Competency Framework are adequately addressed in the curriculum (SAICA, 2016a).

#### 3.4.5 Prospective employers

Prospective employers of accounting graduates are also identified in many research studies as key role players in the accounting profession. Hence, their opinions are frequently sought in accounting research work. Prospective employers evaluate graduate performance in the workplace and also determine the skills required for effective performance in the workplace, thus also playing a role in the skills and competencies prioritised.

### 3.5 The accounting profession today

The landscape of the accounting profession has evolved over time due to economic, social, and economic changes. Thus, the accounting profession is expected to change in line with the economic, political, and social changes occurring locally and globally (Adeyemi and Olamide, 2011). The profession, along with all other businesses, was affected by other global situations, such as the recession experienced in 2007 (Caballero and Walker, 2011). Hence, this has changed how businesses operate to adapt and survive. The fact that traditional tax and audit services provided by professional service providers were previously favoured over commercial services is evidence that the accounting profession has become significantly more diverse over the last 20 to 30 years (Sin et al., 2011). Additionally, these changes have necessitated a shift in how business is conducted to reflect the changes going around, possibly calling for a shift in the competencies and skills expected of accounting professionals. Indeed, rapid changes in

economic contexts have put professional accountants' competencies, i.e., their technical knowledge, skills, and attitudes, to the test (Barac, 2009).

Some changes that have become drivers of change in the accounting profession include globalization, the rise of artificial intelligence, complex digital accounting systems, increased competition, and the expectations of stakeholders such as clients, regulatory bodies, professional bodies, and employers. Under these circumstances, one of the coping strategies commonly applied by businesses today, specifically in accounting, is talent development and retention, ensuring that only those with relevant technical and pervasive skills are hired and retained (Pop and Barkhuizen, 2010). With specific reference skills, it appears that the accounting profession is currently challenged with two issues. The first is the expansion and variation of the accounting job, which leads to an increase in demand for skilled and experienced graduates; the second is the distance and gap between necessary skills and what accounting graduates possess in terms of skills (Nayebzadeh et al., 2013).

### 3.6 Drivers of change in the 21<sup>st</sup>-century accounting profession

#### 3.6.1 Globalisation and the accounting profession

The changes in the global economy have changed how businesses are run and operate, and this is felt in all fields, accounting included. Like many other fields, the accounting profession is challenged to change in line with the economic, political, and social changes occurring locally and globally (Adeyemi and Olamide, 2011). The effect of globalization has been witnessed in accounting and is one of the main drivers of change that has resulted in increased competition in the field (Albrecht and Sack, 2000). Indeed, the globalization of economies has resulted in the creation of links with international businesses.

One of the results of globalization is the development of global standards that seek to better understand financial performance, which is facilitated by adopting a standard financial reporting framework (Needles Jr, 2010). Together with that, Albrecht and Sack (2000) argue that globalization has resulted in an increased pace in business, complex business relationships/transactions, and an added focus on measures designed to increase customer satisfaction. Indeed, the nature of accounting has changed significantly due to changes in the organizational, economic, and technological setting in which this sort of work is performed (Gammie et al., 2002).

In the field of accounting, the seminal Mathews et al. (1990) study is said to have first brought the pervasive skills discourse to the attention of the international accounting profession. Mathews et al.'s (1990) study focused on the changing nature of the accounting profession in response to technological advancement and globalization. According to Cory and Pruske (2012), the evolving global environment has resulted in changes in the skills required of accountants, as national borders no longer restrict organizations. Indeed, the globalization of the economy has necessitated a new set of skills for accountants to function effectively in various work contexts, geographies, and cultures (Winterton and Turner, 2019).

By all means, as corporate networks expand across divisions, cultures, and even time zones, the demand for more skills such as effective communication within the team grows as well (Cheruvilil et al., 2014). To point out, AL Mallak (2012) claims that communication skills are becoming increasingly vital for accountants in the workplace due to the increasing amount of technology and information available and the rapid changes occurring in the global workplace. Not to mention that accountants must be able to obtain data and communicate it succinctly to manage effectively with globalised set-ups and modernized firms with more operating and manufacturing processes (AL Mallak, 2012).

Correspondingly, Ainsworth (2013) draws our attention to the fact that due to globalization and international relationships, accountants should understand international languages and cultures in order to understand local and international clients because what might be acceptable/correct in one culture may not be in another (Yates, 2015). Consequently, accountants are now expected to have the ability to handle diversity as clients have changed (age, culture, race, and nationality), and the accounting space has turned into a global space. Adaptability has also surfaced as a pervasive skill worth working on, and so does having a global mindset.

De Lange et al. (2006) underline that the global changes have necessitated a shift in the skills expected of accounting professionals to offer value-added services to their customers, clients, and employers. Likewise, Flaming and Mosca (2019) state that accounting students aiming to enter the professional environment must go beyond the mastery of accounting standards and regulations and pay attention to other skills that would enable them to be successful in a global space of business.

### 3.6.2 The use of technology/digitisation/artificial intelligence in accounting

The rate of technological changes globally is hastening at an unprecedented rate, with many suggesting that a Fourth Industrial Revolution (4IR) is being entered into (IODSA, 2016). 4IR stands for a variety of new technologies that are integrating the physical, digital, and physiological worlds, affecting all fields, economies, and sectors, and even questioning beliefs on what it means to be human (Schwab, 2017). The technological advancements are said to be a combination of technologies that eliminate the boundaries between digital, biological, and physical elements (Schwab, 2016) that affect all industries, including accounting. Indeed, globalization of business, tighter laws, and a plethora of technical solutions and advances are all having an impact on the accounting profession (Gulin et al., 2019). In fact, the 4IR, with its advanced automation, is a prominent feature of today's working environment in which upcoming accounting graduates will operate. With this in mind, it has been said that while transformations in work and skill demands resulting from the 4IR may be similar to those seen during past decades, the accounting profession will be considerably impacted (Rumbens et al., 2019).

New technologies and concepts such as cloud computing, mobile technology, social media, advanced robotics, 3D printing, blockchain technology, augmented reality, big data analytics, dynamic business metrics, and more so, artificial intelligence have been introduced in addition to network connectivity in business today (Al-Htaybat et al., 2018). According to KPMG (2018), these technologies are combined into an Intelligent Automation strategy, allowing accountants to collaborate with technology to improve workflow and problem-solving procedures. These rapid technological advances have substantially changed how business interacts and functions (Mitchell et al., 2010). To point out, the increased use of the internet, availability of data anywhere and at any time, the reliance on artificial intelligence, and the availability of big data and other digital technologies have changed how businesses are run and operated (Gartner, 2015). In fact, accounting professionals' communication options with clients have also evolved due to technological advancements.

Regarding how the introduction of advanced computerised systems has improved specific accounting tasks, an example of cloud technology is relevant, as this technology allows accountants to remotely access business information. With this technology and specialised accounting software, accountants can do bookkeeping and accounting activities from a remote site (Al-Htaybat et al., 2018). This technology is more beneficial today than ever due to the

corona virus pandemic affecting the whole world. By all means, with such technology, many accounting functions may be performed from the comfort and safety of the accountant's home. Likewise, according to Schneider et al. (2015), data analytics has a substantial influence on financial systems in terms of inference, prediction, and assurance to decision-makers. Using this technology, businesses could upload their historical financial transactions to the corporate cloud, allowing users or clients to mix audited, disaggregated financial data as needed (Brandas et al., 2015). In addition, financial reporting and auditing systems support various entities and activities, such as trading in the financial services industry and protecting shared electronic medical data in healthcare. Also, asset registries in the public sector have the potential to be transformed by blockchain (Deloitte, 2017). With regard to the audit function, digitalization is beneficial to auditors when conducting the following procedures, according to Moudud-Ul-Huq (2014), audit planning, risk assessment, analytical review procedures, materiality assessment, evaluation of internal controls, and assessing going-concern decisions.

Accounting firms have in the past opted for computerized systems for various reasons, including ensuring data consistency and improving the speed of financial reporting and the quality of the financial reports. Recently, however, that are other reasons why accounting functions are digitized, including ensuring that accounting functions operate paperless (KPMG, 2018). Moreover, in the past, accountants relied on local entities as their customer base, but due to web connections and advanced technologies, accountants today expand their services to reach clients across the globe. Today, accounting tasks can be digitized (Bhimani and Willcocks, 2014), and work can be taken to lower-cost areas through networks such as the internet (Howcroft and Richardson, 2012).

The effects of the fourth industrial revolution on the skills and abilities sought from chartered accountants have been significant (Burrows, 2017). Given the developments, most of which result from the move towards the fourth industrial revolution, a shift in how future accountants are prepared for skills that will keep them relevant in the accounting profession has become necessary (Craig, 2015). Undoubtedly, the advances mentioned above have transformed the twenty-first-century accounting profession. Accordingly, today's limitless economy necessitates a new generation of multi-skilled accountants with a greater grasp of their field, and this new breed would be more than just accountants or auditors (Ghani et al., 2008). To put it differently, in today's digital era, the need for humans in the electronic world of accounting has changed. It has become apparent that accounting graduates need more than just

technical skills to meet the profession's needs that have become heavily technological. With specific reference to the audit function, the extensive use of advanced information technology features such as cloud computing has necessitated a skills shift (Miles, 2016). These technological advancements and the added use of such technologies in accounting practices affected the personal skills and attributes, and technical knowledge levels required of accounting graduates (Uyar and Gungormus, 2011). In fact, using each of these new technologies necessitates a variety of knowledge and pervasive skills. For instance, McKinney Jr et al. (2017) points out that it is vital to develop critical and sceptical thinking abilities that enable people to evaluate big data analytics and 'become informed sceptics critically.' According to Albrecht and Sack (2000), technical innovation and the move toward a global corporate environment are key factors affecting the accounting profession and its professionals. Notably, due to technological advancements, the accounting profession is expected to undergo a major change in the future.

While it is thought that technology will transform the skills required for accountants to succeed in the accounting profession, the influence is thought to be higher among newly graduated accountants who have recently entered the professional environment than among managers (Jackson et al., 2020). Being that if accounting graduates lack the necessary skills, particularly digital and soft skills, they will likely fall short of expectations in today's highly competitive environment marked by globalisation and automation. (Nwokike and Eya, 2015). Because of the possibility of technology changing the functions graduates will perform in the workplace, upcoming accounting graduates will need to be educated for new and different roles and responsibilities when practices become too automated and related roles become redundant (Al-Htaybat et al., 2018). Indeed, these developments emphasize the significance of pervasive skills alongside the technical skills usually expected of accountants. Hunton (2002) concurs and further argues that the new value of professional accountants lies in their generic (pervasive) skills since most accounting tasks have become automated. In fact, the contemporary global economy and landscape for advisory services are also rapidly changing, necessitating a wide-ranging education for accountants that will develop skills and knowledge of accounting information systems as well as knowledge of the role of the accounting function within a modern organization (Atanasovski et al., 2018).

These rapid developments have also sparked concerns around chartered accountants' future job security. The concerns have been raised since most of these electronic alternatives can handle tasks that chartered accountants have been doing over the years and even more. In some cases, the use of technology has resulted in a situation where anyone with adequate computing and accounting software abilities who can produce reports with a mouse click can claim the title of "Accountant" (Jeremiah and Daferighe, 2019). Indeed, the introduction of advanced technologies and sophisticated computerized accounting packages with capabilities of processing financial information in a way that is far greater and faster than human beings has shifted the responsibilities of professional accountants. Although this may be true, functions that involve critical thinking, increased creativity, training, and contact with people, according to Oschinski and Wyonch (2017), will not be automated anytime in the foreseeable future. Under these circumstances, it is important to realise that our pervasive skills, attitude, mindset, and people management abilities are the attributes that differentiate us from a system of algorithms and codes, and that these are now the most crucial in the future workplace (Hong, 2016). However, not all research studies point to that; some evidence shows that greater reliance on IT technology has the potential to replace a significant amount of work and specialized activities performed by professionally qualified accountants and auditors (Albrecht and Sack, 2000; Crawford et al., 2011), which may threaten jobs for accountants.

Accordingly, technology has influenced the preferences of employers in terms of skills possessed by accounting graduates (Mitchell et al., 2010). With technology playing a significant role in accounting, the necessity for accounting practitioners to continually review their skills sets has become apparent. Additionally, the skills considered 'best' a few decades ago may be considered inadequate today because of the increased use of technology in the profession. In agreement, according to Ngwenya (2018), accounting professionals may face challenges emanating from the over-use of technology in the field, fearing that such professionals may be replaced by IT systems that can process large volumes and complex transactions much faster than human beings process.

As a result of technological advancements, the scope of accountants' jobs and activities is expanding but has also resulted in a reduction in the work of repetitive operations that existed in the conventional method setting. Invoicing, payroll, and bookkeeping are examples of such activities (Arntz et al., 2017; Gulin et al., 2019). Owing to technological advances, accountants'

responsibilities have changed from processing financial information to including duties such as providing guidance, advice, and support to corporate clients, resulting in a widened scope and a provision of other value-added services. Providing value-for-fee services is a means of securing long-term client relationships for professional service entities like accounting firms (Sarapaivanich and Patterson, 2015). Low, Samkin, and Liu (2013) argue that technological advancement in accounting has caused a shift from primarily technical skills being the only critical skills in the field to including communication skills, coordination skills, and the ability to work under pressure and problem-solving. Moreover, today more and more accountants are involved in value creation in their respective entities and in creating sustainable economic growth through fair and unbiased financial reporting. Ensuring that entities comply with the norms and standards of acceptable financial reporting is now one of the critical responsibilities of accounting professionals today.

However, as mentioned above, none of those improvements are without flaws. The inherent dangers of technological advancements are numerous, ranging from technological threats, such as hacking attacks and virus exposure, to potential legal and financial ramifications that cannot be prevented entirely (Al-Htaybat et al., 2018).

### 3.6.3 Changes in client and employer demands/expectations

Research suggests that many factors may have increased the focus on pervasive skills in the accounting profession. One such factor stems from the type of ‘product’ or ‘service’ professional accountants offer to the public nowadays. That is to say, due to the changes in the accounting environment, including greater complexities of commercial transactions, a fast-paced work environment, and frequent changes in client and professional demands, the prioritization of non-technical skills has come to the fore (Tempone et al., 2012).

Albrecht and Sack (2000) were among the first scholars to argue that, given the availability of information and global competition, clients can now, more than ever, dictate the type of information they want and need, as well as how it is reported to them. In contrast, they rarely had enough power to influence management or demand specific information in the past. Nowadays, the client is more involved in determining the type of service they expect from their accountant. This is not surprising given that client-business relationships are more important in organizations that provide services than products, such as accounting firms because communication and understanding connect the supply and demand (Fox and Royle, 2014).

Clients may now not only choose the type and nature of financial information they want from their accountants, but they can also reduce the time it takes for that information to be supplied by communicating the timeframes to their accountant (Albrecht and Sack, 2000; Hogan et al., 2013). With that in mind, accountants today are expected to offer quality advice and solutions to their clients/employers using their ability to link knowledge and data. As a result, investing in long-term human capital is said to boost business innovation by allowing entities such as accounting firms to find new and better methods designed to suit their clients' requirements (Fox and Royle, 2014).

The fact that professional accountants no longer just offer the traditional auditing and taxation services but are now involved in providing strategic advice to businesses on many facets of the business has created a need for these professionals to look beyond the numbers to find creative solutions to unstructured business problems. These complex problems could result from complex business transactions, global e-commerce, or even cost-reduction/containment strategies opted for by many businesses today. Providing the best advice and service calls for creative and flexible accounting professionals who are expected to use their life experiences, skills, and knowledge to solve business-related problems. According to IFAC (2010a), the dynamic landscape of the profession necessitates a new breed of an accountant with generic skills such as communication, teamwork, leadership, problem-solving, analytical, and interpersonal skills.

Indeed, the reasons for the heightened need for pervasive skills by clients include increased competition, globalisation, and the necessity to improve the bottom line (Bancino and Zevalkink, 2007). Nabi (2003) concurs and states that the added focus on pervasive skills is attributable to increased competition due to globalisation, the use of technology, changing customer demands, and the increased demand for financial performance in today's tumultuous economies. By the same token, in order to maintain the quality of financial reporting and the provision of other services to the highest standard employers of accounting graduates are focusing on finding the right set of skills and values from the new entrants (Low et al., 2008).

Equally important, accounting firms must give their clients quality services to remain competitive, and providing quality services can be accomplished by employing quality personnel (Chan and Ho, 2000). Indeed, the quantity of clients is crucial to the firm's sustainability, and their contentment is a top priority. Given that, it would seem that accounting firms ought to recruit staff with excellent communication skills who would be able to explain

and clarify financial matters to clients so that clients are satisfied and understand their financial situations. Jafaar (2018) concurs and emphasizes that good communication skills are critical to ensuring client satisfaction. Necessary to realise that technical skills remain an absolute necessity, but there has been a shift in how pervasive skills are perceived, from ‘nice to have’ to these being critical skills.

Businesses are now expecting their technical staff to have the ability to write well, effectively communicate and also apply their critical thinking to complex business transactions (Tran, 2013). In fact, many accountants today are working in pressure-driven environments. The heavy workloads, frequent changes in technology, tax legislation, business systems, and professional standards have all contributed to the changes in the professional life of an accountant. Other scholars investigated how workload influences the intention of newly hired junior auditors to leave the profession and discovered that workload has a strong negative influence on job satisfaction and a significant detrimental influence on work-related stress and work-life conflict (Pradana and Salehudin, 2015, Smith et al., 2011). Moreover, according to their findings, work-related stress also raises employee turnover intention. Having said that, the ideal situation is for all accounting professionals to have the ability to deliver to a deadline without experiencing burnout. With this in mind, it would seem that having the right skills to cope with the pressure, such as stress management skills in such work environments, becomes critical. By the same token, early career accounting professionals are also expected to perform at the required level despite the pressure of an ever-changing accounting field landscape. In order for newly graduated professionals to cope with the demands of the profession,

It is essential to realize that the rise of millennial clients has also necessitated a different approach to dealing with clients who may be looking for more electronic solutions and more value-added services from accountants. Cory and Pruske (2012) add, by proposing that for a modern-day accountant to survive in today’s diverse business environment, communication skills (proficiency in a second language too) and creativity in terms of problem-solving are essential. Today, accountants occupy leadership positions early in their professional careers, thus expected to have the knowledge and skills needed to fulfill their duties. Moreover, accountants today are also expected to have the ability to network. These pervasive skills are essential for businesses to survive and thrive in today’s competitive environment, most of which are led by accountants.

### 3.6.4 The requirements and expectations of regulatory bodies

The main regulatory body, the IFAC, started promoting the requirement for accounting practitioners to have a broad set of skills and competencies, including pervasive skills, more than a decade ago. On the other hand, some consider the Bedford Committee on Future Accounting Education, established by the American Accounting Association in 1986, to be one of the key contributors that helped promote the pervasive skills narrative in the accounting profession (Livingstone and Lubbe, 2017). The American Institute of Certified Public Accountants released its Initial Core Competency Framework in 1999 due to this.

The IFAC indicates that an accountant's skills should be made up of a mix of technical and pervasive skills (also known as generic skills (IFAC, 2007)). The IFAC claims that the role of a modern-day accountant has changed from that of a number cruncher to that of a strategist and communicator (IFAC, 2010b). That is to say, accounting practitioners, whose portfolio is expected to be comprised of multiple skills and knowledge acquired through knowledge and practice, are expected to provide more value-added services to their clients who are demanding more. IFAC (2003) suggests that new entrants are to understand global markets and cultural dimensions, should be able to develop and interpret complex financial data and be in possession of solid communication skills, a tough ask of newly graduated accountants. The IFAC (2003) states, "Pervasive skills are critical in an accounting career as these skills enable the professional accountant to make successful use of knowledge gained through education."

The International Accounting Standards Board (IASB), through its International Accounting Education Standards Board (IAESB), formalised the standard – International Education Standard 3 (IES3) in 2003, which outlined the professional (pervasive) skills and general education requirements for accountants. The International Federation of Accountants (IFAC) distributes the standard IES3 to all member entities to ensure that all qualified accountants are able to follow the standard. This standard specifies the main components of global accounting education and the abilities necessary for professional accountants as intellectual, technical and functional, personal, interpersonal, organizational, and business management, emphasizing the importance of pervasive (generic) skills in the accounting profession (IFAC, 2017a). The IES has played a critical role in creating highly qualified professional accountants with abilities that should be comparable across countries (IAESB, 2009). With specific reference to the South

African context, the SAICA conforms to the IES standards as required by its IFAC membership, and its compliance is acknowledged in its action plan objective in Statement of Membership Obligation No. 2 (IFAC 2017b).

In the same fashion, the recognition of the need for pervasive skills in the accounting profession is gaining much attention from professional bodies in various countries, including the United States of America (USA). In the USA, the Institute of Certified Public Accountants (AICPA) published the requirements for pervasive skills in new entrants to the profession in its publication – The Core Competency Framework for entry into the accounting profession (AICPA, 2010). Although conceptions of what comprises a competency-based approach differ, the focus on workplace outcomes is a constant theme (Boritz and Carnaghan, 2003). The competency frameworks encompass itemised and comprehensive descriptions of the skills and competencies an entry-level accounting professional should be able to demonstrate. Such competency frameworks tend to accentuate the pervasive skills and attributes (professional) skills component of the competencies identified (Warffemuis et al., 2015). It would seem that many professional bodies throughout the world are formulating and instituting Competency Frameworks, and the AICPA framework is an exemplar of one of them.

Likewise, to respond to the increased need for pervasive skills in the accounting profession, specifically in South Africa, SAICA introduced the Competency Framework in 2008 (SAICA, 2009). The SAICA Competency Framework was developed and implemented with the view of ensuring that those who hold the CA designation remain relevant in the rapidly changing business environment (SAICA, 2015a). Correspondingly, the SAICA switched to a competency-based qualifying examination, now known as the Assessment of Professional Competence (APC), from the previous final qualifying examination (SAICA, 2015a). The newly adopted competency-based examination examines technical and pervasive skills and has different competency levels ranging from “awareness,” “basic knowledge at the contextual level,” “daily use and application,” and lastly, “advanced application.” The AICPA framework is comparable to the SAICA Competency Framework in terms of the basic premise.

For the purpose of ensuring the relevance of accounting graduates, universities offering SAICA accredited accounting qualifications have to ensure that each identified pervasive skill and attribute has been addressed in the professional degree curriculum (SAICA, 2016a) and

evidence to this effect furnished to SAICA (SAICA, 2009, 2016a). In addition, the call for the prioritisation of pervasive skills and attributes during academic training by professional bodies in accounting is also promoting accounting graduates' employability (Parvaiz et al., 2017a). This goes to show that business and professional bodies, whose perceptions of university graduates largely influence the economic advantage they yield for their employers, have been essential proponents for integrating generic skills in accounting courses (Bunney et al., 2015). Furthermore, the profession seeks to attract dynamic accounting professionals who would cope with the profession's demands (Hesketh, 2011).

Furthermore, Low et al. (2008) emphasise the importance of pervasive skills in accounting professionals, indicating that all behaviour displayed by accounting professionals must protect the profession's reputation. Protecting the reputation of the accounting profession is taken seriously by the profession. For this reason, the profession must have high standing and status to sustain its legitimacy. Given that the responsibility to meet public interest demands and a high level of conduct by accounting professionals remain the responsibility of the accounting profession, accounting professional bodies worldwide have moved from a knowledge-based accreditation practice to those that require aspirant accountants to exhibit skills (such as pervasive skills) and competencies identified in their respective competency frameworks before being admitted as registered members of the profession (Strauss-Keevy, 2012; Strauss-Keevy, 2014).

### 3.6.5 Increased competition for accounting jobs

Many changes have occurred in the business environment, as is well acknowledged. These changes include, but are not limited to, the globalisation of business and rapid technological advancements. These changes have resulted in fierce worldwide competition, which has filtered down to businesses providing the same product or service. It is no surprise that increased competitiveness has been noticed in the financial industry and has been said to increase competition for jobs in this industry. Correspondingly, the increased competition, highly mobile careers, and changes in the global markets have all caused a shift in the skills required of accountants, resulting in a heightened need for pervasive skills (Maelah et al., 2012). In such a competitive job market, pervasive skills are believed to add value to the graduate's portfolio of skills and expertise provided to potential employers (Andrews and Higson, 2008). Echoing the same sentiments, Makki et al. (2015) point out that in today's

business environment, there is much competition to attract, develop, and keep the best and most competent people, to the extent that some employers prioritize pervasive skills over technical degrees when employing.

The accounting profession, even though it remains a highly desired profession due to its reputation for high employment rates, owing to the economic downturn, the unemployment of graduates has risen, resulting in graduates competing for jobs that are not enough for all of them. The global recession has indeed increased the strain on fresh graduates as companies now have a large pool of applicants from which to choose, resulting in the role of pervasive skills in the recruitment process becoming more pronounced (Chakraborty, 2009, Joseph et al., 2010, Mitchell et al., 2010, Ramlall and Ramlall, 2014). Also, due to the rising enrolment in accounting degrees worldwide, accounting graduates are now facing competition when seeking professional employment as they ought to distinguish themselves from their competitors, who may have similar qualifications and grades (CFE, 2010).

Stovall and Stovall (2009) point out that due to the changes in the economy, there has been a decrease in the number of recruitments by public accounting firms, creating challenges for accounting graduates in securing employment soon after graduating. Hence, many graduates are compelled to review their skill sets to increase their chances of securing professional employment within the shortest possible time from graduation. With this in mind, accounting graduates often seek employment outside their areas of primary residence, with some moving overseas for work. Indeed, the move by some professionals to other countries for work has also increased due to globalisation (Cooper, 2006). Maelah et al. (2012) also made the same observation, stating that this profession (accounting) is a highly mobile career. However, this growing mobility of graduates willing and able to travel wherever the possibilities are best for employment has also heightened the degree of competition in the accounting graduate recruiting market and will likely continue to do so in future (Andrews and Higson, 2008).

Given the extent of the competition, accounting graduates seeking a successful career in the field must work on and ultimately exhibit a range of skills, particularly pervasive skills, to succeed in the highly changing global business setting (De Lange et al., 2006). The Accounting Insider (2018) article concurs and further states that as a result of increased competition for accounting jobs, employers have become strict in their requirements, seeking employees who

are not just in possession of the technical skills but who have a grip on soft skills and who would be the ‘right cultural fit’ for the entity as well.

### 3.6.6 Evolving roles of accountants

Globalisation, increased use of technology, and complex business structures and accounting processes have, without a doubt, dramatically changed the accounting profession. Business today has changed due to the global changes currently taking place, and so have the roles of accounting professionals in the business environment. Many changes have been witnessed in the accounting profession, with roles changing to adapt to the needs of the 21<sup>st</sup>-century business environments. In days gone by, accountants were perceived/believed to be number crunchers who were solely interested in the reporting and communication of financial performance. Traditionally, accountants were mainly involved in financial reporting and the management of accounts and facilitated tax compliance. Previously, those not in the profession, especially youngsters looking to choose future careers, did not seem to imagine how the accounting function could present fun and exciting work experiences other than the mundane, routine, and not-so-flexible work. To put it differently, in days gone by, accounting professionals were regarded as number crunchers who were scorekeepers who generally lacked many interpersonal and pervasive skills. However, in as much as accounting may still be perceived by some to be a tedious occupation, attractive to conservative accounting professionals (Jeacle, 2008), such perceptions are changing (Tingey-Holyoak and Burritt, 2012; Tournia Germanou et al., 2009) as more studies show that this profession is no longer like that today.

According to Jones and Abraham (2009), the traits expected of accounting professionals in today's global business climate have evolved dramatically since the early 1990s due to globalization, changing technology, and several high-profile company failures. Given that, many changes have been witnessed in this type of employment/field, with roles changing to adapt to the needs of the 21<sup>st</sup>-century business environments. These changes have caused a rapid shift in the expected skills and competencies, and hence the added focus on pervasive skills, including communication and critical thinking skills (Jackling and De Lange, 2009). Today many repetitious accounting duties are now done by the ICT system of handling, storing, retrieving, and transferring information due to the development of ICT in business environments around the world (Al-Htaybat et al., 2018). That shows how an accountant's conventional scorekeeping duty is no longer applicable (Picard et al., 2014). Indeed, with the

global corporate changes, the out-of-date scorekeeping role of professional accountants is no longer satisfactory in today's business models (De Lange et al., 2006). By all means, the accounting profession landscape is expected to change in line with the times. Henceforth, an accountant is not primarily concerned with standard bookkeeping, reconciliation, historical reporting routines, and verification, a hallmark of these twenty-first-century innovations, and now has a broader and dynamic job description (Jeremiah and Daferighe, 2019). Indeed, these changes have resulted in a widened scope for accountants (Ramlall and Ramlall, 2014).

Today accountants need to possess a diverse set of skills to work as management consultants, financial analysts, tax specialists, business process management consultants, and other responsibilities (Ghani et al., 2008). In fact, today, an accountant's tasks have been broadened to include a greater variety of vertical and horizontal responsibilities, reframing the accountant's job in the twenty-first century, with some considering the accountant to be a strategic manager (Jeremiah and Daferighe, 2019). To point out, the roles fulfilled by accountants in the 21<sup>st</sup> century have changed, from number-crunching to more involved roles such as providing leadership, exercising rigorous judgement, forensic accounting, managing teams, and providing strategic direction (Bescos, 2002; Jeremiah and Daferighe, 2019; Jones and Abraham, 2009). It appears that accountants now focus on financial ratio analysis and other value-added advisory services (Atanasovski et al., 2018). In fact, the accountant's role has evolved and will continue to evolve as the client connections and services they provide evolve to support the success of successful practices (Hartstein, 2013). Another point often overlooked is how the introduction of integrated and sustainability reporting has changed how business success is perceived these days, which has led to other ways of evaluating business success. All these changes have called for the re-configuration of the roles and responsibilities of professional accountants.

The 21<sup>st</sup>-century business environment requires adequately prepared graduates in terms of skills and other competencies. The rapid changes in the professional space in which accounting professionals operate today are evidently calling for constant modifications of the competencies and skills required to function successfully in this dynamic profession (Jackling and De Lange, 2009). As changes in the accounting profession continually occur, accounting practitioners are expected to evolve with the times. These changes have resulted in the

profession seeking dynamic accounting professionals who are more likely to cope with the profession's demands (Hesketh, 2011).

Accordingly, for accountants to remain relevant, they ought to be ahead in terms of technical knowledge and non-technical skills. As a matter of fact, for the accounting profession to remain relevant, professional accountants should strive to demonstrate their technical expertise and non-technical skills and attributes to be at the forefront of development by initiating and leading change (Merino and Aucock, 2017). This could explain what seems to surface often in accounting literature: it is necessary for accounting students to acquire pervasive skills to cope with the demands of the accounting profession (Barac, 2009; Jackling and De Lange, 2009; Kermis and Kermis, 2010). In fact, accountants with pervasive skills are more critical to their businesses given the high degree of interaction they have with clients in today's involved accounting function (Cobo, 2013). Of course, technical and generic skills are required in the accounting profession for professional accountants to properly contribute to their broader positions within the organization (Zureigat, 2015).

Indeed this is a current challenge facing the accounting profession, and it is attributable to the expansion and variation of the work of an accountant, which leads to an increase in demand for skilled and experienced graduates (Nayebzadeh et al., 2013). Also, given the scope of today's accountant, which now entails more than just completing checklists and balancing figures and often involves interacting with individuals from different levels within or outside the organisation, social skills are now critical. Moreover, employers point out that without these critical skills, graduates are not able to interact and communicate with others in a professional work environment, a key component for their success (Cobo, 2013). Moreover, today's accountants must have strong oral and written communication skills to describe how an organization has performed and what all the figures in the financial statements represent to management and other stakeholders such as shareholders.

In light of the nature of accounting work, accounting professionals are expected to deal with all types of clients and stakeholders in various situations. These professionals are expected to understand and respond appropriately to all parties, who may be at different levels in the organisational structure. Accountants should also have the ability to read emotions to determine

appropriate responses; e.g., the professional (or graduate) must have the ability to put the client at ease and respect them. In a time when most businesses are building their initiatives on client/customer expectations in order to have a competitive edge, having the ability to negotiate with clients is vital (Vijayalakshmi, 2016). Thus, effective communication may be used by clients, particularly SMEs (Small-medium enterprises), to evaluate service quality, e.g., audit quality, value, and their intentions for patronage (Sarapaivanich and Patterson, 2015).

Not to mention that the make-up of the workplaces is also a source of concern. Employees from all generations, cultures, and gender identities make up today's workplace, each with its own set of demands, values, and work approaches (Flaming and Mosca, 2019). Indeed, the changing structure of the modern workplace, with increasingly diverse workplaces and how work is now undertaken primarily in teams, cross-functional groups, and even virtual teams in business, could be ascribed to this shift in skills. Likewise, in describing the requirements of the Big 4 accounting firms in graduate recruiting, Bouyer (2011) stated that employers prefer accounting graduates with a global perspective, i.e., those who can function in diversified teams and connect with people from various cultural backgrounds. For these reasons, accounting graduates must have the pervasive skills required for mastering the art of dealing with and understanding people and their emotions (Sin et al., 2011), especially in a group setting, where everyone must be a good communicator and able to contribute in a way that increases the team's knowledge capital (Waldeck et al., 2012). These arguments indeed support the views of Taylor (2016), who suggested that employees who excel in scientific or technical fields but lack other abilities such as management and collaboration will be of much less value to businesses in the future.

In light of the rising complexity and quick change in the accountant's professional role, a reassessment and critique of university accounting courses to place a greater emphasis on the development of pervasive skills by accounting graduates have spurred (Albrecht and Sack, 2000). This view is also emphasised by Low et al. (2013) and Maelah et al. (2012), who say that due to the changing nature of the accounting workplace, academics in accounting education ought to teach skills that would enable aspirant chartered accountants to adapt to such an environment with ease and minimal support, given that this profession is a demanding one

### 3.6.7 Accounting scandals

According to Kavanagh and Drennan (2008), the accounting profession has come under scrutiny as many failed businesses have surged.

In 2001, the accounting profession watched as various business scandals unfolded, including the demise of Arthur Andersen, a well-known accounting firm, and the collapse of an Italian dairy, Parmalat, in December 2003. In response to the rising scandals, in July 2002, Congress passed the Sarbanes-Oxley Act, which established a new accounting body with the power to influence the accounting profession. The Securities and Exchange Commission (SEC) controls the newly established "Public Company Accounting Oversight Board." The board is in charge of overseeing public company auditing practices to protect investors' interests and avoid disasters or financial losses due to questionable accounting practices. The Sarbanes-Oxley Act forbids a registered public accounting firm from simultaneously delivering audit and non-audit services to a company.

### 3.7 Perceived importance of pervasive skills in different contexts

It would seem that employers seek varied pervasive skills from accounting graduates, according to the literature studies, and this variance may be due to different contexts. Hassall et al. (2005) contrasted employer views about which pervasive skills they believed necessary in the United Kingdom and Spanish contexts. The data they presented revealed that oral and written communication skills, which included effective listening, were the most critical for employers in the UK. At the same time, professionals in Spain ranked higher the dedication to lifelong learning, problem-solving, and the organization's global vision.

In an Australian study, accounting graduates highly ranked problem-solving, critical thinking, time management, and communication skills (Carr et al., 2006). On the other hand, in the same setting, the Australian context, the pervasive skills and attributes expected of accounting graduates by employers/accounting firms were problem-solving skills (Hancock et al., 2009), communication skills (Tempone et al., 2012), and others. In the United States of America, Albrecht and Sack (2000) conducted an extensive research study in which they surveyed 4,000 accounting academics and accounting practitioners to determine core skill sets (from a list of 18 pervasive skills and attributes) they believed to be critical in the accounting profession. This seminal study was later on, in 2002 replicated by Francisco and Kelly (2002) from the perspective of 223 undergraduate students also in the United States of America and by Lin et al. (2005), who surveyed 185 accounting practitioners, 876 students, and 43 academics in a

different context, China. The results of Albrecht and Sack (2000) revealed that written communication was ranked first by accounting practitioners and second by accounting academics among the 22 “critical” abilities evaluated. Academics and practitioners ranked written communication and critical thinking first and second, respectively. Both respondent groups placed oral communication third. The results of the replica study by Fransisco and Kelly (2002) showed some similarities with those of the original study, but some differences were also noted in the ranking of these pervasive skills and attributes from the students’ perspectives. One of the similarities was with regard to communication skills. It was revealed that communication skills were also a top priority for accounting students, with written communication ranking first and oral communication second.

The findings of the study conducted in a Chinese context by Lin et al. (2005) showed results that were not consistent with those of the two studies – Albrecht and Sack (2000) and Fransisco and Kelly (2002). The differences were found in the ranking of written communication skills which was lower than the two other studies by all study participants, especially the ranking by students who ranked it ninth out of the eighteen pervasive skills and attributes under study.

In Japan, practitioners regarded knowledge and behavioural skills as the most critical skills, according to Sugahara and Coman (2010). These findings illustrate the shift in the function of the Japanese accountant from traditional wealth reporting to a more perceptive practitioner providing advice and insight. In conclusion, this debate indicates a lack of consistency in the opinions of the three key stakeholders: the employers, accounting students/graduates, and academics in accounting about the skill set necessary for accounting graduates entering the field and for success in the profession.

Notwithstanding the importance and desirability of pervasive skills as revealed through various scholarly, it would seem that it may prove impossible to instil all the essential skills in a degree programme, thus determining the skills that are most essential for securing entry-level professional employment (junior level professional position in accounting) could prove helpful as such pervasive skills may be prioritised at Higher Education level. Equally, pervasive skills perceived as relevant for more senior accounting positions would have to be prioritised later on and excluded from the accounting programme’s responsibility as these may be acquired during the training programme or in the workplace.

### 3.8 The importance of the selected pervasive skills in the accounting profession

The following discussion focuses on the importance of the five selected pervasive skills in the accounting profession. As indicated earlier, the selected pervasive skills are communication skills, critical thinking, problem-solving, decision-making, and stress-management skills.

#### 3.8.1 Communication skills in accounting

Communication skills are believed to be necessary pervasive skills as these are preferred by employers of accounting graduates (Sithole, 2015). In fact, these skills are globally understood to be critical skills and abilities for accounting professionals all over the globe (Viviers, 2016; Hancock et al., 2009; Gardner, 2017; International Accounting Education Standards Board, 2010).

Speaking, listening, writing, and comprehension are components that comprise the skills collectively referred to as communication skills (Hanna et al., 2015; Sharp and Brumberger, 2013); these skills also include facial expressions, gestures, and eye contact (Mahmud, 2014). Communication skills may be classified into two categories, oral and written communication and can be grouped under verbal and non-verbal communication. Oral communication is a form that takes place through the mouth, as opposed to writing, and involves language, words, and tone (Mahmud, 2014). It entails talking with one another, which can be done directly, face-to-face, or indirectly, such as through telephone calls. Examples of oral communication include making speeches and presentations as well as dialogues. As a subset of communication skills, written communication shows one's ability to write. Non-verbal communication, on the other hand, entails being aware of the audience, body language, and personal presentation (Mahmud, 2014).

It is argued that individuals communicate even when they do not intend to. For instance, according to Adler et al. (1986), a mere blush is deemed a type of non-verbal communication, and lip reading, fingerspelling, sign language, and human interactions are all examples of communication skills, including language ability to express knowledge.

Computer-based communication and other non-verbal communication are widely employed in both personal and professional settings. Computer-Mediated Communication (CMC) is a form of communication activity over two or more computer systems or networks, and examples of

this type of communication include email, chat rooms, instant messaging, and text messaging (McQuail, 2010).

Communication skills have been identified as the most desired pervasive skill from accounting graduates by employers (Viviers, 2016) that could serve as a distinguishing factor when selecting a suitable candidate from two candidates with the same academic qualifications and experience (Brink and Costigan, 2015; Walker et al., 2015). These skills have also been proven to positively influence professional performance and, of course, promotion prospects (Jackson, 2016). Internationally and locally, employers indicate their preference for these skills in the accounting job advertisement, indicating the importance of oral and written communication skills even in technical disciplines like accounting.

From as far back as 1998, the need for communication skills in accounting was already getting attention, and this was due to the change from the industrial economy to an information economy, which resulted in more employers seeking these skills from accountants (Zehr, 1998). In fact, employers argue that communication skills and the ability to fit into the corporate culture are critical and just as important as technical skills in an accounting environment (Low et al., 2016). These skills are necessary to reach higher-level positions in commercial fields (Vijayarathy et al., 2015). Emphasising this point is Gardner (2017:27), who indicates that:

“Competence in communication also increases the accountant’s ability to analyse industry markets, study trends, and to provide financial planning advice for the future.”

Viviers (2016) believes that the communication skills of accountants must be reasonable given today’s professional accounting environment, which is characterised by global markets, market changes, and advanced technologies. It would seem then that accountants these days ought to be competent in communicating using all sorts of platforms such as online (virtual meetings, email, and telephonically, in addition to regular face-to-face communication (Gardner, 2017).

Additionally, accountants in the modern-day ought to be competent in communicating through Computer-Mediated Communication (CMC), which involves communicating via linked computer networks such as email, instant messaging, and social networking (McQuail, 2005). Then again, when accountants consider their communication channels to use with clients by selecting from email, phone calls, video conferencing, or in-person meetings, some considerations are made, including the clients’ accessibility, location, and preferences (Witherspoon, 2010).

In as much as some argue that employers seem to prefer oral communication over written communication (Brink and Costigan, 2015), other scholars would argue that strong written communication abilities are necessary, particularly for entry-level accountants must have strong written communication abilities (Christensen and Rees, 2002; Jones, 2011; Kavanagh and Drennan, 2008).

Accounting professionals must be able to “present, discuss, report, and defend views effectively through formal, informal, written, and spoken communication,” according to the International Federation of Accountants (International Accounting Education Standards Board, 2010, IES3 Professional Skills and General Education, para. 17(f)). Because accounting deals with financial recording following prescribed standards and procedures, it necessitates debate and discussion with those supplying information and with those the financial results will be communicated to, such as clients or management (Jafaar, 2018). In the same fashion, a professional’s capacity to network in teams, create trust, and use critical thinking abilities to negotiate in any industry improves with communication skills (Jackson, 2013). On the other hand, a lack of communication skills may lead to miscommunication with clients or employers, which could possibly incur costs. Because fewer mistakes are made, the assumption is that costs are lowered, and profits are increased. On the other hand, a communication breakdown may impact performance, which is linked to a cost increase (Jafaar, 2018). Moreover, communication skills are crucial to accounting professionals and auditors, particularly when discussing, defending, and reporting views (Jackson, 2013).

By the same token, today’s accountants, using their communication skills, should provide advice to clients about the implications of complex accounting transactions that are now so common (Howieson et al., 2014). Indeed, an accountant that can understand and respond to clients is much needed in accounting firms (Gardner, 2017). In fact, according to Gray (2010), 91 percent of professional accountants working in accounting firms believe communication skills are critical for accounting graduates. Also, with the changes in the scope and duties of accountants, it has become necessary for accountants to be able to present various reports and information in board meetings; hence presentation skills have been identified as a critical facet for work performance and enhanced employability (Andrews and Higson, 2008). Moreover, communication skills are required by accountants in order to make presentations to clients, management/board, and other parties within the business, and to provide guidance to clients, they need to articulate well (Gardner, 2017).

Several studies have been conducted on the importance and challenges of communication skills in accounting. Amidst the initiatives by the academic programme and several studies focusing on the communication abilities of accountants, particularly early-career accountants, the impression that accountants are poor communicators persists (Gray, 2010; Jackling and Natoli, 2015; Lin et al., 2010; Wines et al., 2013; Witherspoon, 2010). Most of these studies have revealed that employers believe accounting graduates enter the workplace with inadequate communication skills (Gray, 2010; McDonald, 2007; Wines et al., 2013). A study by Kunz and De Jager (2019) revealed that written and verbal communication showed the most significant deficiency among all the pervasive skills. Those findings showed consistency with those of Hancock et al. (2009). Even accounting students themselves are in the know about the skills expectation gap in the area of oral and written communication (Hassall et al., 2003) despite the various interventions by the academic and training programmes (Siriwardane and Durden, 2013; Smythe and Nikolai, 2002), thus painting a bleak picture about this persistent challenge. Written communication skills have been identified as particularly poor in new entrants, with many graduates lacking the ability to write well-written business reports, emails, and letters to clients (Bui and Porter, 2010).

With many scholars focusing on the importance of communication skills in accounting and some proposing strategies and interventions that ought to alleviate the problem, recent studies still indicate a deficiency in this area. De Lange et al. (2006) conducted a study that revealed that accounting students lacked in two main areas of communication; oral expression and interpersonal skills. A study conducted on 85% of accounting firms (who remain one of the leading employers of accounting graduates) in New Zealand by Gray (2010) revealed that oral communication skills are considered essential by employers when employing accounting professionals and that newly graduated accounting professionals spend an average of six hours per week communicating orally with colleagues, clients, and superiors. In particular, employers identify communication skills as the most sought-after non-technical skills (Low et al., 2016). Bui and Porter (2010) concur.

A study conducted by Gray (2010) suggested that listening attentiveness is essential at all accounting professions levels and that employers were concerned with how accounting graduates used slang, incorrect pronunciation, and incomprehensible English (particularly second language English graduates). It is concerning that various studies have pointed out that accounting graduates lack listening skills (De Lange et al., 2006; Gray and Murray, 2011).

When dealing with colleagues and clients, accountants use listening and speaking skills in many instances. Therefore, these are desirable to employers (Gouws and Terblanche, 1998; Gray and Murray, 2011). However, of the main components of communication skills, i.e., reading, writing, listening, and speaking, listening skills are most neglected in accounting education curricula and accounting research (Lynch, 2011). Specifically, the accounting curriculum seems to focus more on the students' written communication skills than oral communication (Craig and McKinney, 2010).

Additionally, Fortin and Legault (2010) argue that listening skills are usually incidentally developed through an effort by academics to encourage students to express their opinions and views. At the same time, many accounting academics understand their task to assist students in developing these skills, but the challenge seems to be around how this may be accomplished (Stone et al., 2013). This observation paints a concerning picture because accountants, due to their active role in organisations, are expected to be competent communicators who ought to use these skills to listen to and understand client needs (Hancock et al., 2009). Given the fact that the needs of clients have changed with more diverse services and added consulting activities, accountants, in order to keep up, are expected to change into good communicators and critical thinkers (Bunney et al., 2015). Furthermore, these skills assist employees in efficiently collaborating with others (Jackson, 2014a) which, judging by the nature and how accounting work is undertaken (generally in teams), are crucial for conducting professional duties.

In terms of specific areas of communication skills, the following list indicates the skills that employers of accounting graduates ranked highly for effective work performance in the accounting profession by junior professionals according to Gray and Murray (2011:284):

1. Demonstrating a professional demeanour of genuine concern for clients
2. Inquiring of management for explanation or feedback
3. Conferencing with clients over the phone
4. Providing superiors with accurate and exact descriptions of situations
5. Projecting a confident and competent approach to clients.

An international perspective on the essential nature of communication skills in the accounting profession was witnessed in New Zealand in 1996 (and subsequently updated in 2005) when the Institute of Chartered Accountants in Australia (ICAA) called for Higher Education institutions offering accounting programmes to teach generic skills. These generic skills, which

include communication skills, were indicated as critical areas to be prioritised by academic programmes to ensure that graduates can effectively communicate both in writing and verbally (Sin et al., 2007). Furthermore, due to the global trade and a competitive business environment, teaching communication skills by higher education institutions has become necessary to produce graduates who can communicate and apply their technical knowledge (Andrews and Higson, 2008). Then again, despite such interventions and calls, some recent accounting graduates still do not display the required communication skills even though their employers emphasize them in the employment phase (Kavanagh and Drennan, 2008). Various scholars have attempted to explain why the poor communication skills challenge persists in accounting. Some of these studies, as dated as they may be, may still hold today that some accounting academics do not understand the need for communication skills by practicing accountants (Maupin and May, 1993) and that accounting programmes fail to transfer appropriate communication skills to accounting students prior to graduation (May and May, 1989).

### 3.8.2 Critical thinking in accounting

Critical thinking may be defined in many ways. Even though critical thinking is widely understood to mean rational thinking and applying one's mind to evaluate a situation critically, there are other clearer definitions of critical thinking. Facione (1990) offers a more dated definition of critical thinking as a purposeful, self-regulatory judgement that results in understanding, analysis, assessment, and insinuation, as well as clarification of the evidential, abstract, methodological, criteria-logical, or contextual considerations on which judgement is based. However, this study followed Behar-Horenstein and Niu's (2011) more recent definition of critical thinking, which defines critical thinking as being intellectually engaged and skilled and having responsible thinking that enables excellent judgement. In the definitions available in the literature, critical thinking, especially in accounting, seems to encompass concepts such as questioning, meta-cognition, reasoning, and judgment (He et al., 2013).

On the other hand, in defining the critical thinking construct, Beyer (1985) viewed it as a set of skills that combine information analysis and evaluation and further identified ten different skills which are the foundation of critical thinking over the years:

*“Distinguishing between verifiable facts and value claims*

*Determining the reliability of a source*

*Determining the factual accuracy of a statement*

*Distinguishing relevant from irrelevant information, claims, or reasons*

*Detecting bias*

*Identifying unstated assumptions*

*Identifying ambiguous or equivocal claims or arguments*

*Recognizing logical inconsistencies or fallacies in a line of reasoning*

*Distinguishing between warranted or unwarranted claims*

*Determining the strength of an argument.”*

**Source: Beyer (1985: 272)**

Based on the clarification of the critical thinking construct, this skill set appears necessary for accountants and auditors. Developing critical thinking is essential for everyone, particularly those seeking to enter dynamic professions like accounting. Internationally, in countries such as New Zealand, skills such as communication and critical (analytical) are identified by employers as essential skills for accounting graduates (Bui and Porter, 2010). Thus, accounting students aspiring to be chartered accountants should prioritise these skills alongside technical skills. However, in as much as developing critical thinking skills can be easy for some, others need support in developing these skills. Faherty (2015) draws our attention to the fact that developing critical thinking skills should result from joint efforts by students and academics.

The accounting profession regards critical thinking as an intellectual capacity that improves an accountant's capacity to analyse and solve non-deterministic issues, uncover errors and inconsistencies, and make sound decisions (Jenkins, 1998). Moreover, critical thinking involves making decisions based on practical and specialized knowledge tied to usefulness, truthfulness, and reliability (Moore, 2013). Critical thinking skills are deemed critical by employers as these skills are said to make accounting graduates more competitive (Aman and Sitotaw, 2014). In particular, critical thinking is a much-expected skill for the proper performance of accounting duties today. What has been revealed is that critical thinking skills have been getting much-needed attention in accounting from the date the Bedford Committee Report was published (Association, 1986), with various researchers revealing how vital these skills are.

Using critical thinking skills, graduate accountants can review, theorise and consider alternatives to today's business problems; these skills ought to help them develop creative ways of handling client issues (Gardner, 2017). In as much as the argument presented by Andersen

et al. (1989) and Jenkins (1998) may seem dated, what these studies claim is still applicable today, that critical thinking skills are essential for accounting professionals who, as a result of the changes in their roles require critical thinking and that these skills are more than just recalling accounting procedures, standards, and guidelines. These studies suggested that because professional accountants are expected to not only solve problems but also anticipate problems, this has caused a shift in the skills and knowledge required of these professionals. In a quest to provide solutions to myriad business-related problems, which may be presented as an unfocused set of data that a professional accountant is expected to re-organise and make sense of, which may be in unfamiliar settings, accountants need to draw from their critical thinking skills.

Moreover, employers often indicate their preference for accountants who can exercise high-order thinking and critically apply their minds (Aman and Sitotaw, 2014). Today more than ever, accountants should be able to read and comprehend financial information, formulate critical thoughts, and devise appropriate responses to client requests and queries (Etter and Ross, 2013). Aldhizer III (2015) agrees and further states that critical thinking skills should help the accountant determine business risk and debrief clients about the said risk.

Indeed, with the reforms in the professional accounting workplace, the role of an accountant has been revised, warranting a reform in accounting education to equip the aspirant accountant with a revised skill set. Indeed, aspirant accountants ought to be taught critical thinking skills in the academic programme, which should be perfected by the training programme in the workplace (DeSimone and Buzza, 2013). The role of a professional accountant has been revised to include more responsibilities and render more value-added tasks for their clients, calling for them to look beyond the numbers to apply accounting standards and find creative solutions to the prevalent unstructured, complex business transactions.

Critical thinking is one of the skills that researchers agree are absolutely critical for a successful career in accounting (McBride et al., 2005; Tempone et al., 2012) and is claimed as a skill that may improve the manner in which functional tasks in accounting, tax, and auditing are conducted by recent graduates, irrespective of their intellectual and type of schooling background (Karr, 2009).

Teaching critical thinking skills to aspirant accountants (accounting students) may be challenging, given that some believe higher education today is still focused on what to think rather than on how to think. Other challenges include that some scholars believe teaching this much-needed skill is only possible if it is integrated into teaching discipline-specific knowledge and skills. On the other hand, scholars such as Ennis (1989) hold a belief that critical thinking should be taught separately. It would seem, for some, that the benefit of teaching critical thinking skills at the higher education level has both long-term and short-term benefits, short-term being enhanced academic performance and long-term being ready for the ever-so-demanding professional space. With many scholars in agreement with the value of critical thinking skills, it would then be understood why some scholars believe that all aspirant accountants should be competent in all the levels of Bloom's Taxonomy, as indicated in Bloom (1956). The levels in Bloom's Taxonomy include, in ascending order, (1) knowledge; (2) comprehension, (3) application, (4) analysis, (5) synthesis; and lastly, (6) evaluation. For a professional accountant or aspirant accountant, being competent in all these levels is paramount, mainly when dealing with complex financial transactions or transactions with an element of fraud. The ability to critically analyse data and exercise professional scepticism is critical. With the accounting and audit failures in the past few decades, such as Enron, Xerox, Microsoft, WorldCom, Sunbeam, Rite Aid, Tyco, and Waste Management, among others, the need for accounting professionals to be critical thinkers and good decision-makers has heightened (Armstrong, 2003).

### 3.8.3 Decision-making in accounting

The term "decision-making" refers to a rational process that results in the selection of a preferred choice or plan of action from a set of options based on particular criteria (Wilson and Keil, 2001) and is said to be one of the most important cognitive processes in humans (Wang and Ruhe, 2007). According to Dietrich (2010), decision-making is influenced by several factors. These influences are past experiences, cognitive biases, age and personality differences, a conviction in personal relevance, and increased commitment. Some scholars argue that decision-making abilities are not just the outcome of development and socialization but also the result of natural processes that occur throughout a person's life (Rai, 2016). According to Vedpuria (2021:2395), most decision-making processes take six key processes that individuals are advised to follow while making decisions:

1. *Determining and diagnosing the issue*

2. *Seeking alternatives*
3. *Considering the options*
4. *Selecting an option*
5. *Putting the decision into action*
6. *Evaluating the choice.*

Decision-making skills are frequently identified as critical for new and experienced professional accountants. This is because the nature of an accountant's scope of work involves decision-making. Nadziakiewicz (2016), with attention to accounting and auditing, explains that a considerable component of an accountant and auditor's job involves analysing a finite set of alternatives in terms of how each alternative is attractive when the auditor considers all simultaneously. This suggests that the very nature of an auditor's work involves selecting options from available alternatives, which would be ranked based on the professional's preference, explicit or tacit knowledge.

It has been argued in several studies that some pervasive skills complement each other. That is to say, one skill helps demonstrate the other. One example is communication skills and decision-making skills in the context of accounting work. According to Gardner (2017), the ability of an accountant to communicate with clients and provide timely information helps reduce decision-making failures. Similarly, the need for critical thinking skills is also applicable to other science-based careers where professionals are expected to make logical decisions by applying their minds and knowledge to various situations to make good decisions.

The necessity of decision-making skills for an accountant/auditor is also emphasised in the International Financial Reporting Standards (IFRSs). These worldwide standards require accounting professionals to make sound judgments and inferences, particularly on information involving subjectivity, such as fair value measurements, which necessitate critical analysis (Karr, 2009).

#### 3.8.4 Problem-solving in accounting

Problem-solving skills are conceptualised differently in various contexts and disciplines. Montano et al. (2001) define problem-solving as the ability to apply logic and abstract reasoning to pick among a variety of options when presented with a decision or option. On the other hand, according to Mayer (2011), problem-solving is a cognitive process aimed at achieving a goal when no obvious solution exists.

The importance of problem-solving skills to an accounting student and graduate is critical. This is evidenced by employers, who generally want to see a greater emphasis on problem-solving skills among graduates (Politsinsky et al., 2015). The development of problem-solving skills in accounting graduates can give graduates the ability to gather information, analyse and organize it, communicate it, and adequately evaluate it (Sumaryati et al., 2020).

Given the nature of accounting work today and the various positions accountants occupy in businesses, which in many instances at management or executive levels, it would seem that drawing on their technical expertise and problem-solving skills is critical in understanding and solving complex business transactions. Correspondingly, chartered accountants should be aware of the economic, social, cultural, and even psychological elements that may influence corporate operations and the political pressures that influence standard settings. This empowers these professionals to handle a wide range of challenges in a variety of contexts. (Kgapola, 2015). Likewise, Kavanagh and Drennan (2008) point out that the three most desired skills by employers of accounting graduates are problem-solving, business awareness, and technical accounting skills.

One of the challenges facing accounting graduates in the professional work environment is the inability to transfer knowledge gained at university to solve academic problems into the workplace to solve professional problems (Bowden and Masters, 1993). For the graduates to effectively transfer academic knowledge to the professional and practical workplace, they need to have the ability to think well (Jones and Abraham, 2007). As eluded previously, professional accountants are tasked with completing transactions that are no longer routine in nature but may be perceived as complex, ambiguous, and non-routine. They are also expected to solve client problems that may share the same characteristics. Then, it would seem that the ability to problem solve has become critical to today's professional accountant (Botes, 2005).

Employers of accounting and business graduates indicate that the new entrants must demonstrate a fair amount of problem-solving skills, which may be shown through their ability to think analytically and critically (Andrews and Higson, 2008). These skills would enable them to solve complex accounting problems (Weaver and Kulesza, 2014). Additionally, accounting graduates must be able to work in a multifaceted and constantly changing world. Hence, they must have problem-solving skills to function in unknown or complex settings (Jones and Davidson, 2007).

### 3.8.5 Stress-management skills in accounting

Accountants and auditors work all year, but their workload tends to peak near the end of the year (López and Peters, 2011). The deadlines for accountants working in audit environments are frequently tight, and there is usually a considerable work overload during such busy periods (Molina-Sánchez et al., 2019). To add to that, interruptions at work seem unavoidable. According to Vollmer and Tysiac (2017), each day, the average working professional receives roughly many email messages, many of which arrive with a ding that implies greater urgency than the majority of communications warrant and in addition to that, instant messaging, text messages, phone calls, meetings, and questions from co-workers peeking through the open door. Let alone the pressure to complete the work to the required standards which may also put strain on accountants during such high-workload periods.

Time and budget pressures are not new issues in the accounting profession, but the situation is not improving as years go by. In fact, it has been previously suggested that due to the steadily expanding audit sector in the past few years, increased client requirements, and stricter regulatory requirements, auditor workload stress has increased (Chang et al., 2017). Indeed, workplace pressures such as time budget pressure can have substantial personal, organisational, and social implications (Cooper et al., 2001). Health concerns (individual), impaired audit quality, employee attrition (organisational), and health costs are only a few examples of the consequences of working in a pressure-driven environment. Under those circumstances, it appears that many accountants may be subjected to high-stress levels, which can negatively impact their well-being and ability to fulfil their duties (Molina-Sánchez et al., 2019).

Unlike workload stress, stress results from a process in which an individual feels the demands and challenges of life, job, or home pressure (Cooper, 2002). On the other hand, workload stress is defined as stress caused by a high workload or excessively high work to complete, which can be exacerbated by inadequate resources to handle the workload (DeZoort and Lord, 1997; Lennox and Wu, 2018). On the other hand, Yan and Xie (2016) claim that the impact of work stress is determined by the combination of work demands and control. This scholar elaborates, claiming that work demands refer to the volume of work, time constraints, and role conflicts; work control refers to the individual's response to work demands, such as coping methods and relief strategies. However, workplace stress is not limited to accountants and auditors; it has been stated that, as a result of market competitiveness, many professionals such

as lawyers, specialists, and corporate leaders, as well as accountants and auditors, all confront some level of workplace stress (Yan and Xie, 2016).

Workplace stress has significant financial and operational effects that cannot be overlooked. According to Cooper (2002), unmanaged workplace stress is related to higher levels of employee absenteeism and turnover, lower levels of performance, and lost workdays due to sick leave. Equally important, work-related stress has been shown to influence a number of aspects, including one's decision-making ability (Ganster, 2005). Notwithstanding all these issues, it remains critical that the accountants' subjective well-being is maintained to ensure their balanced professional judgement and for projecting a favourable image of the profession to attract and retain good talent. Also, given the multiple complexities associated with work-related stress, it appears that those presently in the accounting profession and those considering entering the profession would need practical stress management skills to cope with the demands of the profession.

Employees in all professions, including accounting, are increasingly expected to be able to manage and deal with the pressures that come with their careers and work responsibilities. Although there are other definitions of stress management in the literature, this study adopted Bukhsh et al.'s (2011) definition, which defines it as the ability to sustain and control when situations, people, and events place overwhelming demands on a person. Based on this definition, stress management appears to have the appropriate reaction strategies during times of pressure. Given the nature of the professional workplace, it has been suggested that graduates must develop specific capacities beyond their qualifications in order to deal with the stressful nature of the workplace (Masole and van Dyk, 2016).

The Human Capital Theory (HCT), which was adopted as the theoretical framework underpinning this qualitative investigation designed to address the first research which focused on the factors that resulted in pervasive skills coming to the fore in the accounting profession, was presented in the previous section along with a review of the literature. In the following part, the generated data, which was thematically analyzed, is presented using the Samagaio and Rodrigues 2016 Model and discussed.

### 3.9 Presentation and discussion of findings

#### **Introduction**

The preceding section provided a discussion on the theoretical framework underpinning the first research question and the model adopted. Also, a literature review pertaining to this question was provided.

The results of the first research question of the study are presented in this section. The first research question was to explore the perceptions of accounting students and academics about the factors that have resulted in pervasive skills coming to the fore in the accounting profession. The individual semi-structured interviews with accounting academics and focus group discussions with accounting students were undertaken between August and September 2019.

Appointments were set up with the academics who were purposively sampled. With the consent of all participants, the interviews were audio-recorded. The interviews were thereafter transcribed from the audio recorder into textual data in the first phase of data analysis. In order to make sense of the data collected, the researcher had to listen to each of the recorded interviews three times before transcribing, reviewing the interview notes taken during the interviews and discussions at the same time. The notes provided more than just participants' responses but also a note on the non-verbal cues and moods of participants. A note about the venue where each of the interviews was held was made. The academics shared their views about other issues (although outside the research parameters) that added to a better understanding of the phenomenon under study. In this instance, they also shared their views, experiences, and observations of accounting students regarding their demonstration of pervasive skills.

#### **Use of direct quotes**

In writing each participant's response to questions asked during the interview and backgrounds, it was felt essential to keep to the participants' true expressions and style and thus not remove meaning from their opinions and views. As a result of this decision, there may be grammatical and sentence structure errors when highlighting participant quotes throughout this chapter.

This section focuses on the presentation and discussion of findings from the qualitative data that was inductively analysed in relation to this research question. Thematic analysis was used to code data and, after that, to identify the emergent themes, main and sub-themes using the NVIVO software. To graphically demonstrate the results of the thematic analysis of data,

thematic maps, word clouds, hierarchical charts, and concept maps were used. The use of these tools is recommended by Silverman (2000). The main themes and sub-themes will be presented with the corresponding excerpts from the individual semi-structured interviews and focus group discussions. In order to identify the position/status of the participants, the prefix ‘student’ was assigned to each student participant, and ‘academic’ was a prefix assigned to academics who participated in the study. Pseudonyms were used for both sets of participants. In terms of how the themes and sub-themes are presented in the thematic maps, the main themes appear within an oval shape, and sub-themes are indicated within a rectangular shape.

This section begins with a presentation of the demographic information of the study's participants. The demographic distribution of the participants is critical when evaluating the trustworthiness of qualitative outcomes (Creswell, 2014). Each of the participants provided their background and experience information, such as:

- Gender
- Occupation
- No of years of lecturing in the Bachelor of Commerce: Accounting degree
- Experience in teaching at other universities in accounting or similar academic programmes
- Experience of professional accounting work experience

## **Profiles and demographic distribution of the participants**

### **a) Individual interview participants**

Nine accounting academics agreed to participate in the study and share their views and perceptions about the area under investigation. Each participant was assigned a pseudonym that was used throughout the study. All the pseudonyms assigned were all English names and surnames to hide the identity of the participant's race. The purpose of using carefully selected pseudonyms was to protect the identities of all participants. The one-on-one contact interviews allowed participants to openly share their backgrounds, experience levels, and views about the phenomenon under investigation.

- **Overview of each interview participant**

1. Aiden Anderson – thereafter referred to as Academic, AA

Academic, AA was a male academic in the Department of Accounting of the university selected as a case study. He has extensive experience in teaching one of the accounting modules. Academic, AA has more than five years of professional accounting work experience.

2. Donovan Douglas – thereafter referred to as Academic, DD

Academic, DD was a male academic in the Department of Accounting of the university selected as a case study. He has extensive professional accounting work experience but limited experience teaching accounting modules at the Higher Education level.

3. Ethan Erasmus – thereafter referred to as Academic, EE

Academic, EE was a male academic from the same higher education institution as the other participants with extensive experience in teaching one of the accounting modules in the Accounting department and professional work experience in an accounting environment.

4. Fiona Flinch – thereafter referred to as Academic, FF

Academic, FF was a female accounting academic in the same university's Department of Accounting. Academic, FF has four years of professional accounting work experience and academia as a lecturer in one of the accounting modules.

5. Georgina George – thereafter referred to as Academic, GG

Academic, GG was a female participant, an academic currently lecturing one of the accounting modules. She has extensive lecturing experience in the current university and has previously worked at another higher education institution. She has a fair amount of professional work experience in an accounting work environment.

6. Jenna Jacob – thereafter referred to as Academic, JJ

Academic, JJ was a female academic in the Department of Accounting of the selected university. She has extensive professional accounting work experience in public practice and the private sector. She also has many years of lecturing experience in accounting.

7. Liam Lawrence – thereafter referred to as Academic, LL

Liam Lawrence was a male academic participant in the Department of Accounting of the selected university. He has extensive experience, professional and academic, and has worked in different sectors.

8. Madison Mitchell – thereafter referred to as Academic, MM

Academic, MM was a female academic in the Department of Accounting of the case university. She has extensive experience both in teaching and professional work in Accounting.

9. Rachel Rogers – thereafter referred to as Academic, RR

Rachel Rogers was a female academic currently lecturing one of the accounting modules in the Department of Accounting in the case study university. She has several years of professional accounting experience and has been a lecturer in the Accounting discipline for less than ten years.

**b) Overview of focus group discussion participants**

All the focus group discussion participants were in the final year of their professional accounting degree and were registered full-time in 2019. All the participants are from KwaZulu-Natal, three participants resided in an on-campus residence, and the rest lived with their parents. All the participants participated of their own free will. Racial and cultural representation was considered in the composition of the focus group discussion groups. Tables 3.2 and 3.3 below show the profile of focus group discussion 1 and 2 participants:

*Focus Group 1*

**Table 3.2 The profile of focus group discussion 1 participants**

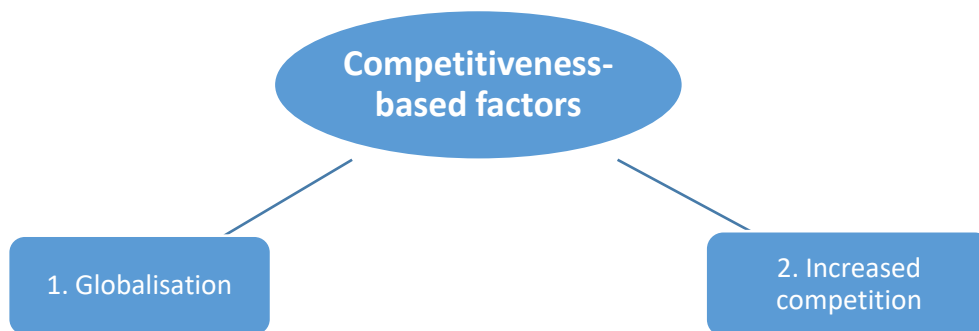
<b>Name</b>	<b>Name used in the thesis</b>	<b>Gender</b>	<b>Home language</b>	<b>Intends to serve training articles</b>
Carl James	Student, Carl	Male	English	Yes
Stacy King	Student, Stacy	Female	English	Yes
Vikash Moodley	Student, Vikash	Male	English	Yes
Bradley Smith	Student, Bradley	Male	English	Yes
Ntokozo Zungu	Student, Ntokozo	Female	IsiZulu	Yes
Tasha Naidoo	Student, Tasha	Female	English	Yes

**Source: Self-generated**



to four. The naming of the themes was per Samagio and Rodrigues's (2016) Model and was discussed according to the Human Capital Theory using concepts drawn from Samagaio and Rodrigues's (2016) Model.

The first theme, as well as its sub-themes, are presented in Figure 3.3 below:



**Figure: 3.3 Main theme 1 with sub-themes**

**Source: Self-generated**

### **Theme 1: Competitiveness-based factors**

This theme was characterised by the accounting academics and students' perceptions about the factors that have resulted in pervasive skills coming to the fore in the accounting profession in South Africa. This theme had two sub-themes, as shown in Figure 3.3 above.

#### *Sub-theme 1*

#### **Globalisation**

Globalization is a theme that came out strongly as a factor that has caused a shift in the skills expected from accounting professionals, resulting in pervasive skills getting added attention. Both sets of participants shared this view. The following quotes were extracted concerning this sub-theme:

Academic AA shared:

*There is now more interaction with other global businesses; thus, this has changed the skills expected of accountants, and that has caused a change. (Academic, AA).*

Another participant also indicated:

*Accountants are also expected to deal with global transactions. (Academic, GG).*

Other participants added to this view:

*Globalisation has also had a huge impact. This has had a huge impact because whatever reports you are preparing as an accountant, someone in Singapore needs to be able to understand these. They need to understand the numbers and what these mean.*

*Nowadays, accountants hold video conferences with people from all over the world, so communication skills are expected to be good.*

*Even when you prepare reports, the wording you use must be appropriate. The wording that is used in financial reporting needs to 'blend' with that other accountants globally would understand. You must communicate at a user's level; that's also important... The world has changed, and we need to move with the times as well. (Academic, JJ).*

Academic, RR also articulated:

*I have also noted that companies are transacting with other overseas companies. To survive in business today, you have to allow your business to extend beyond the borders. This means that as a CA, you have to have the ability to deal with people from all walks of life. The fact that businesses now have international relationships has created a need for these skills..... So having a global mindset is key for an accountant today.*

A student participant added to this view:

*You find that CAs have to travel to overseas countries in order to secure contracts on behalf of their organisations, so negotiation skills are important. (Student, Ntokozo).*

Another student echoed this point and said:

*Today we exist in a global market. CAs no longer stay in one area. You find them constantly changing jobs and even moving to overseas countries. For those who choose to move outside our country, I'm sure they use their soft skills to adapt to new environments. Without these skills, they may be perceived as irrelevant. (Student, Ashley).*

### **Discussion of results: Globalisation**

When the research participants were asked about the factors that have caused an added focus on pervasive skills in the accounting field, many participants believed that business going global had necessitated a change in the skillset today's accounting professionals ought to have in order to remain relevant to the field. Participants noted how prevalent it is for local businesses to transact for business purposes with other businesses beyond the borders to survive in the current competitive business environment. This finding is consistent with Cory and Pruske's (2012) findings, which revealed that the rapidly shifting global environment has resulted in a shift in the skills required of accountants. This finding also confirms the findings of De Lange et al. (2006). They concluded that global trends had prompted a shift in the capabilities demanded of accounting professionals to provide value-added services to their customers, clients, and employers.

It would seem then that the findings of this study and some others similar to it as discussed show that the globalization of economic systems has caused the establishment of international business links. As a result, accountants are now supposed to effectively manage diversity as clients have changed (culture, race, and nationality) as the accounting space has become global. Also, this finding lends support to the findings of Viviers (2016) and who argued more specifically that the communication skills of accountants must be reasonable, given today's professional accounting environment, which is characterised by global markets, market changes, and advanced technologies. Sharing the same views, Cheruvilil et al. (2014) also concluded that as business networks spread across sectors, cultures, and even time zones, the need for additional skills such as efficient team communication develops.

Participants in the study also revealed that, as the world has become more global, financial reports prepared by an accountant in South Africa should be understandable to someone reading the reports in another country. Some participants further explained how accountants today, due to global linkages, often find themselves communicating through video conferencing with parties from all over the globe. Indeed, in today's world, computer-based communication, like other forms of nonverbal communication, is widely used in both personal and professional settings. To emphasise, video conferencing has been widely used in accounting practices to communicate with clients who may be located in remote locations; this is more evident now than ever before due to the coronavirus pandemic.

Participants further explained how good communication skills would assist accounting professionals in conducting their duties. This finding is in line with the findings revealed by Jafaar (2018), who suggested poor communication skills could result in misunderstandings with clients or employers, perhaps resulting in expenditures; this would be the case given that fewer mistakes would be made. This finding suggests that having good communication skills would result in reduced expenses and, consequently, high earnings. On the other hand, a communication breakdown may influence performance, which is linked to increased costs (Jafaar, 2018). In complete agreement, Jackson (2013) pointed out that communication skills are also crucial for accountants and auditors, especially when discussing, defending, and reporting their findings. These results highlight how critical oral communication skills are in the accounting field today. Touching on how vital written communication skills are in a global environment, some participants highlighted how important it is for accountants to carefully select the wording they use when reporting financial data to avoid confusion and ambiguity. This observation validates the importance of written communication skills in the accounting work environment.

On the same point, another participant expanded, sharing how important it is for accounting professionals to consider the levels of the users of financial statements when reporting, pointing out that these professionals should strive to use language that is at a user's level, which would ensure one of the qualitative characteristics of sound financial reporting, which is understandability. One participant highlighted how important it is for accountants to have a global mindset and good communication skills, particularly negotiation skills. These skills would assist accountants, especially those who travel to overseas countries, secure business contracts on behalf of their entities. Some participants shared how professional accountants should have good problem-solving skills due to the globalization of business. They went on to share that in today's global accounting environments, accountants need to be able to solve more complex accounting problems due to international transactions, e.g., FOREX transactions.

### *Sub-theme 2*

#### **Increased competition in accounting**

This sub-theme came out strongly in both sets of participants. They believe that the increased competition for jobs has shifted the skills focus, resulting in pervasive skills being the differentiating factor when employers employ new entrants into the accounting profession.

Some participants also believed this job mobility to have necessitated pervasive skills, especially when these professionals adapt to unfamiliar places and work contexts.

Some of the views of accounting academics were as follows:

Academic EE shared:

*.....especially with increased competition in the accounting profession. You know there's competition for clients, and some clients would normally judge value by looking at the soft skills that the employees are bringing to the table, as opposed to technical skills which you can get from one firm to the other, they are the same.*

Another academic shared the same idea:

*.....increased competition for jobs in the industry. (Academic, FF).*

Another participant added to this view:

*So in terms of winning business, jobs, and clients, pervasive skills become a 'must' in this profession. (Academic, RR).*

Student, Linda opined:

*Taking into consideration the competition in the industry, accounting firms cannot hire accountants with poor soft skills who are not going to be able to help the firm maintain existing contracts with clients. To the firms, 'Business is business.' Today, more than ever, the firm that is the best is the firm that will take the best graduates.*

Student, Ashley also articulated:

*Another factor that we cannot ignore is that of competition in the industry. Today, accounting firms need to go an extra mile in order to attract and to keep clients.*

Student, Stacy had this to say:

*I see this issue differently, I guess. I think that the more CAs and other accounting professionals registered with other professional bodies like the SAIPA, ACCA, and CIMA, the more employers are going to be demanding of accounting professionals,*

*seeing that the supply is high. This will obviously bring about change. Personally, I think any person with an accounting background, who is not necessarily a CA, can do the work of a CA. In order for CAs to differentiate themselves from the rest of semi-qualified accounting specialists, they have to have more. Generally, CAs get high salaries. In order to show that they are justified to receive such high pay, they have to show that they possess above-average skills.*

Student Stacy continued, saying:

*I'm looking at it from this perspective, in the auditing environment, for example. Already qualifying as a qualified CA is a good indication that you're kind of a person who is an overachiever and not mediocre. And that's why you not having the soft skills is a problem because there are many people who can take your place". The mere fact that you have obtained the CA qualification, it shows you that you are an 'A student,' an over-achiever, and you would not want to be mediocre. Despite that, there are many people who can still take your accounting job just by having the right pervasive skills.*

Under this theme, it was also highlighted that accounting professionals sometimes seek professional work in countries outside South Africa and how having pervasive skills would help such professionals navigate in professional spaces that may be new and unfamiliar to them. The quotes below represent the views of participants.

Academic, AA stated:

*Accountants these days, I'm sure you see it all the time. They are always moving abroad for work. They need these skills to adapt and to be familiar with new environments.*

Student, Ashley shared his views in this quote:

*Globalisation, today, we exist in a global market. CAs are not staying in one area. You find them always changing jobs and even moving overseas. I know so many that have left. When they choose to change jobs, they depend on their soft skills to make it.*

Student, Carl, added and said:

*Another issue is that we know of accountants that graduate in SA but look for work overseas. If you go somewhere new as a fresh graduate and you are reserved and not sociable, you can't ask for help from those familiar with that space, and you'll end up with problems. With these skills you can do your work and settle in better.*

### **Discussion of results: Increased competition in accounting**

This study revealed that the increased competition in the accounting field has also called for a shift in the skills and competencies expected of accounting professionals, resulting in more focus on pervasive skills. Participants revealed that competition for clients possibly drives accounting firms to seek accounting professionals with more than just technical expertise to win over good clients. Some participants also revealed that, in general, technical skills could be assumed in new entrants into the accounting profession, but it is more the pervasive skills that set them apart. They also believed that the competitive accounting industry, especially in the listed market, has resulted in some accounting firms struggling and wanting to hold on to their existing client base and to keep their existing clients and attract more business; the accounting/audit staff needs to be skilled in various skills and competencies.

Some participants believed that some audit clients judged value through the pervasive skills of the audit team and generally assumed that the technical skills in all the different accounting firms were the same. The competition in the accounting industry can also be attributable to the mergers amongst the leading accounting firms, which reduced the number of the major accounting firms to four in the past.

Participants shared their observations of how more prominent firms cannibalize smaller clients, even clients they would not have previously taken, due to the stiff competition in the field. Due to the competition for clients typical in the accounting field lately, more specifically in accounting firms, in order to win business, accounting firms ought to offer more than just their technical abilities. Participants emphasized that pervasive skills have become a 'must' for firms in winning business and clients over, given that some firms have to go an extra mile to secure clients.

Although many participants viewed the competition issue as discussed above, some looked at it differently. It was revealed that due to the changes that have taken place in the accounting sector worldwide, there has been much competition for jobs in this field. This finding supports previous findings that indicate that the increased competition, highly mobile careers and changes in the global markets have all caused a shift in the skills required of accountants

resulting in a heightened need for pervasive skills (Maelah et al., 2012). Again, the findings support (Makki et al., 2015)'s conclusion that in modern organisations, there is a high level of competition to recruit, grow, and retain the best and most competent individuals, to the point where some employers value pervasive skills over technical degrees when looking to hire.

The evidence collected in this study also points to a possibility that employers and professional bodies in accounting might be more demanding of new entrants seeing that many CAs qualify each year, resulting in a high supply. Some participants felt that the more chartered accountants there are, the more employers will be demanding. It emerged that a high supply of chartered accountants might trigger employers to be choosy and demanding.

In addition, participants believed chartered accountants are also facing competition from non-accountants and those possessing accounting qualifications but not qualified as chartered accountants. They believed that non-accountants and those not qualified as chartered accountants might be able to undertake the tasks ordinarily performed by chartered accountants, especially with the advent of technology. They believed that for chartered accountants to distinguish themselves from the rest of the accounting staff and non-accountants, they ought to have more to offer than just technical skills and that their skills need to be above average to justify their high salaries. This is in line with the argument that, due to the rising enrolment in accounting degree courses in institutions around the world, accounting graduates are now facing competition when seeking professional work opportunities since they will have to set themselves apart from their contemporaries, who may have similar qualifications and academic achievement (CFE, 2010). Moreover, this study's finding backs up previous research that suggests the global recession has put more pressure on new graduates because companies now have a larger pool of applicants from which to choose, resulting in a greater emphasis on pervasive skills in the recruitment process (Chakraborty, 2009, Joseph et al., 2010, Mitchell et al., 2010, Ramlall and Ramlall, 2014). The participants also believed that without the soft (pervasive) skills, a possibility exists that even other lower-level accounting staff or those who may operate a computer, since most accounting tasks are now automated, may replace chartered accountants. The same observation was made by Jeremiah and Daferighe (2019) that in some businesses, the title "Accountant" may be used by anybody with decent computation and accounting software abilities who can generate accounting reports with a mouse click. This implies that chartered accountants ought to demonstrate these critical skills in order for chartered accountants not to seem mediocre.

From the data, it also emerged that accounting professionals often seek professional work in countries outside South Africa due to the demand for professional accountants worldwide and competition for accounting jobs currently. Participants shared how common it has become for professional accountants not to stay in one area and regularly change jobs, with some moving abroad for work. Cooper (2006) also noted that broad and diverse accounting expertise and skills are necessary due to the shift in economic activity away from manufacturing and that many students are likely to work in countries other than those they studied. This conclusion supports Andrews and Higson's (2008) observation that the greater mobility of graduates ready and eager to relocate wherever the best employment opportunities exist has increased competitiveness in the accounting graduate recruiting market.

The evidence suggested that having the necessary communication skills would help such professional accountants navigate professional spaces that may be new and unfamiliar. Participants highlighted that in new environments, it would be the pervasive skills that help adapt and that without these skills, the accountant may not stand out and may even be perceived as not the right fit for the job. Therefore if an accountant moves abroad for work and they happen to be reserved and unsociable, that accountant may find it difficult to even ask for help from those who may be familiar with the business and its' environment, a situation that may cause problems with how such an accountant performs their job. The results also suggested that accounting professionals who lack critical skills in new and unfamiliar work environments may easily be mistakenly perceived as incompetent.

## **Main Theme 2: Overall professional performance-based factors**



**Figure 3.4 Main theme 2 with sub-themes**

**Source: Self-generated**

The naming of this theme ‘**Overall professional performance**’ as shown in Figure 3.4 above, was guided by the model suggested by Samagio and Rodrigues (2016).

#### *Sub-theme 1*

##### **Increased use of technology in the accounting field**

This was a frequent sub-theme across both groups of participants. Accounting students and academics saw this movement in the accounting profession as one of the major drivers of the transition away from the purely technical abilities required of accounting professionals in previous years. Academics talked about their previous job experience in a professional accounting context before starting at the site university. They noted the role and impact of technology use in accounting through their lived experiences of working in the professional accounting environment and how computers have taken over tasks that were previously performed by accountants, resulting in accountants being expected to have skills that computers would not ordinarily have, such as pervasive skills.

Academic JJ shared the following, based on her experience in the professional accounting environment:

*I think it's evolved because, in practice, technology has a huge part in the company, especially in the auditing services. So, for instance, in 2008, when I worked at XXX (Company name hidden), we were not required to prepare financial statements. The financial statements were done by a package and what you would do is that the system would prepare everything and give you the financial statements. But it was up to us to go through the documents and pick up those exceptions to resolve them because a computer can't think that there is forex involved and the different transactions coming in, and sometimes it misses transactions like bank charges. So only an accountant can do that.*

*So technical skills are important; it is your foundation. But you need a lot of analytical and critical skills to be able to interpret those financial statements and to go in and resolve that. So, for instance, in the automation of the fixed assets register, as soon as you purchase fixed assets, it goes into the package. Even there, you need critical skills because the package went and correctly calculated depreciation, but it made a mistake and took all the assets and accounted for VAT, and in some assets, you don't account,*

*it is excluded, so only an accountant can pick that up. So if you're only equipped with technical skills, you don't have the analytical and critical skills you are likely to miss.*

Academic GG shared the same sentiments as Academic JJ, stating how accountants should differentiate themselves from what can be performed by a computer. That is captured in this quote:

*Audit and accounting clients want CAs that can perform what the computers cannot perform. They need professionals that can add value to their business. An example I can think of is that a computer cannot sit in the boardroom amongst other people to present its ideas and solutions to problems.....Through experience, accountants face successes and failures that could serve as lessons in future dealings, and hence their experience adds value to the organisations. Now, these computers cannot think critically.*

The perceptions of aspirant accountants were not different from those of accounting academics. Based on their observations, education, research, vacation work experience, and personal interactions/engagements with those in the accounting field, these are some of their views:

*Adding to the point about technology. Everyone is talking about the 4<sup>th</sup> industrial revolution these days; accountants are affected by that as well. Accountants are no longer people who just generate financials. Computers are there just for that, to generate the figures. Accountants are expected to be critical thinkers and decision-makers. Computers just have numbers, but humans (accountants) have insight and judgement. (Student, Vusi).*

Student Gary added that:

*I think the use of technology in accounting has resulted in many changes in the profession, including the skills required. Today we have computers to perform the routine accounting work that was previously performed by CAs. But the problem is that these computers cannot do everything that a human being can do.*

While computers' critical role in accounting was acknowledged as significant and undeniable, participants agreed that due to humans' pervasive skills, computers could never replace the accountant in a work environment. Student, Ntokozo shared that:

*I don't care what we are always told that they [computers] will have artificial intelligence. Computers can never fully take over our function. The ability to put yourself in a client's position is a human skill. Understanding a client's frustrations is also a human skill a computer can never have. I hope that other future accountants like myself realise that we may end up relying on soft skills than our technical skills in this profession in the future. So these skills, I believe, provide the human element to work.*

Student Carl articulated:

*It's basically like, so, we need those human skills. These skills are the very skills computers do not have. In my opinion, these are the skills that we future accountants will use to keep our jobs.*

Student, Bradley and Student, Linda defended the accountant from being replaced by computers, citing that pervasive skills are crucial to keeping a competitive edge over technology in the professional accounting work environment.

*I think that to keep our competitive edge, in our competition with technology, we have to demonstrate these skills more. The computer for example, cannot communicate verbally and cannot answer questions that clients may need clarity on. We, as humans, can do that. Accountants can even see if something is bothering a client. (Student, Bradley).*

*So in a sense, these pervasive skills also filter down to the values that accountants must have so that they can be able to make those decisions. Also, making decisions, it's not just based on the information that you know the computer generates.....So computers don't have that; they just have the numbers. But from the numbers, as an accountant, you can say, based on past experience, or based on that, my judgement is this, in this situation. (Student, Linda).*

In as much as some student participants felt that computers cannot replace accountants and what they bring to a professional workspace, some of them indicated their concerns about being possibly replaced by computers if they cannot convince the employer that they have skills that computers cannot possibly have, some of their concerns are captured in the quotes below:

*People always say that the accounting profession is going to be taken over by robots. Of course, now, these skills have become important.* (Student, Tasha).

Student, Vikash also articulated:

*Oh, yes. We hear that all the time. Computers will take over your accounting jobs! It is worrying! I worry about that sometimes. Imagine studying all these years only for a computer to take your job. It's scary!*

### **Discussion of results: Increased use of technology in the accounting field**

The findings of this study revealed that the increased competition in the accounting field has also called for a shift in the skills and competencies expected of accounting professionals in the field, resulting in more focus on pervasive skills. Participants revealed that competition for clients possibly drives accounting firms to seek accounting professionals with more than just technical expertise to win over good clients. Some participants also revealed that, in general, technical skills could be assumed in new entrants into the accounting profession, but it is more the pervasive skills that set them apart. They also believed that the competitive accounting industry, especially in the listed market, has resulted in some accounting firms struggling and wanting to hold on to their existing client base and to keep their existing clients and attract more business; the accounting/audit staff need to be skilled in various skills and competencies.

Some participants believed that some audit clients judged value through the pervasive skills of the audit team and generally assumed that the technical skills in all the different accounting firms were the same. The competition in the accounting industry can also be attributable to the mergers amongst the leading accounting firms, which reduced the number of the major accounting firms to four in the past.

Participants shared their observations of how more prominent firms cannibalize smaller clients, even clients they would not have previously taken, due to the stiff competition in the field. Due to the competition for clients typical in the accounting field lately, more specifically in accounting firms, in order to win business, accounting firms ought to offer more than just their technical abilities. Participants emphasized that pervasive skills have become a 'must' for firms

in winning business and clients over, given that some firms have to go an extra mile to secure clients.

Although many participants viewed the competition issue as highlighted above, some looked at it from a different angle. It was revealed that due to the changes that have taken place in the accounting sector worldwide, there has been much competition for jobs in this field. This finding supports previous findings that indicate that the increased competition, highly mobile careers and changes in the global markets have all caused a shift in the skills required of accountants, resulting in a heightened need for pervasive skills (Maelah et al., 2012). Again, the findings support Makki et al.'s (2015) conclusion that in modern organisations, there is a high level of competition to recruit, grow, and retain the best and most competent individuals, to the point where some employers value pervasive skills over technical degrees when looking to hire.

The evidence collected in this study also points to a possibility that employers and professional bodies in accounting might be more demanding of new entrants seeing that many CAs qualify each year, resulting in a high supply. Some participants felt that the more chartered accountants there are, the more employers will be demanding. More specifically, it emerged that a high supply of chartered accountants might trigger employers to be choosy and demanding.

In addition, participants believed chartered accountants are also facing competition from non-accountants and those possessing accounting qualifications but not qualified as chartered accountants. They believed that that category of employees might be able to undertake the tasks ordinarily performed by chartered accountants, especially with the advent of technology. They believed that for chartered accountants to distinguish themselves from the rest of the accounting staff and non-accountants, they ought to have more to offer than just technical skills and that their skills need to be above average to justify their high salaries. This is in line with the argument that, due to the rising enrolment in accounting degree courses in institutions around the world, accounting graduates are now facing competition when seeking professional work opportunities since they will have to set themselves apart from their contemporaries, who may have similar qualifications and academic achievement (CFE, 2010). Moreover, this study's finding backs up previous research that suggests the global recession has put more pressure on new graduates because companies now have a larger pool of applicants from which to choose, resulting in a greater emphasis on pervasive skills in the recruitment process (Chakraborty,

2009, Joseph et al., 2010, Mitchell et al., 2010, Ramlall and Ramlall, 2014). The participants also believed that without the soft (pervasive) skills, a possibility exists that even other lower-level accounting staff or those who may operate a computer, since most accounting tasks are now automated, may replace chartered accountants. The same observation was made by Jeremiah and Daferighe (2019) that in some businesses, the title "Accountant" may be used by anybody with decent computation and accounting software abilities who can generate accounting reports with a mouse click. This implies that for chartered accountants not to seem mediocre, they ought to demonstrate these critical skills.

From the data, it emerged that accounting professionals often seek professional work in countries outside South Africa due to the demand for professional accountants worldwide and competition for accounting jobs currently. Participants shared how common it has become for professional accountants not to stay in one area and regularly change jobs, with some moving abroad for work. Cooper (2006) also noted that broad and diverse accounting expertise and skills are necessary due to the shift in economic activity away from manufacturing and that many students are likely to work in countries other than those they studied. This conclusion supports Andrews and Higson's (2008) observation that the greater mobility of graduates ready and eager to relocate wherever the best employment opportunities exist has increased competitiveness in the accounting graduate recruiting market.

The evidence gathered suggested that having the necessary skills, such as communication skills, would help professional accountants navigate professional spaces that may be new and unfamiliar. Participants highlighted that in new environments, it would be the pervasive skills that help adapt and that without these skills, the accountant may not stand out and may even be perceived as not the right fit for the job. Therefore if an accountant moves abroad for work and they happen to be reserved and unsociable, that accountant may find it difficult to even ask for help from those who may be familiar with the business and its environment, a situation that may cause problems with how such an accountant performs their job. The results also suggested that accounting professionals who lack critical skills in new and unfamiliar work environments may easily be mistakenly perceived as incompetent.

### *Sub-theme 2*

#### **Revised job responsibilities of accountants**

Both sets of participants agreed that the professional responsibilities of accountants in public

practice and business have changed from working predominantly with numbers to playing more active roles. According to the participants' views, the revised roles of accountants have called for pervasive skills from these professionals due to their added job responsibilities. The views of participants in relation to this sub-theme are captured in the quotes that follow:

*As an accountant, you can't just prepare financial statements and think, 'That's it!' you now have to explain these statements verbally in meetings, creating a need for good communication skills for example. (Academic, AA).*

Academic, DD felt the same way, adding:

*The accountant is now required to be like a value-added service. Therefore, as an accountant, you need to be good not only in accounting and auditing, but you need to do beyond whatever else that was previously done.*

This statement points out that the job responsibilities have necessitated a skills change.

Academic, RR also stated:

*So today's accountants are saying, ok, what are the numbers telling us? So, you (accountant) need to understand what the numbers mean and what happened before these particular numbers came to be to understand how to increase or decrease them. So you need to understand more factors, and in doing that, coming from a big organisation, you can't just estimate where these numbers come from. There are departments dealing with some of the numbers that make up this number. There could also be other departments that also influence these numbers. As an accountant, you must start talking to different departments about these numbers. Okay, so then, in talking to different departments, the accountant has to have communication skills.*

She further explained:

*As much as a firm can be known for good quality work, they might have teams that go out to clients who cannot talk to clients. Maybe they do a really good job but sadly cannot articulate what they are trying to say; the client will be left unsure. (Academic, RR).*

Another participant added:

*Once you are done with that, you need to communicate your results....If you are not equipped with communication skills, then that is going to lack. Also, you have to prepare board packs for board meetings, so you need to have good written skills and presentation skills because the board doesn't want a whole lot of tables and numbers thrown at them. They want to visualise it. So you need to depict what is happening in the company pictorially, so there is a need for a mixture of skills. (Academic, JJ).*

Another participant highlighted the human aspect of being an accountant who is not just a technocrat, saying:

*... To be able to relate with others and not just be a number cruncher... to be human beings in the workplace. (Academic, GG)*

Stating the added duties and responsibilities accountants have to fulfil, an academic participant, based on her experience in public practice, shared:

*When a client is considering whether to engage a firm, they consider what the firm has to offer in terms of skills and competencies. I know from experience that there is a relationship manager in most accounting firms. A relationship manager is the face of the firm. Clients get to know about the service they will be offered from a relationship manager..... As much as a firm can be known for good quality work, they might have teams that go out to clients who cannot talk to clients. ....Maybe they do a really good job, but sadly if they cannot articulate what they are trying to say, the client will be left unsure. (Academic, RR).*

Another critical point raised by Academic, AA has to do with accountants moving to senior positions early in their careers. He suggests that the need to have pervasive skills is critical due to moving up quickly to occupy management positions and the added responsibilities. This is what he had to say:

*Many accountants occupy management positions shortly after entering the workplace. It becomes critical for them to have the right soft skills that will support their position in the business.*

Student, Ntokozo articulated:

*Previously, accountants were seen as people who were good with figures. Today we see accountants playing a more visible role in the running of the business.*

Student, Carl added:

*So they are more involved in the workplace. They are not just manipulating numbers. They interact with people at different levels. For them to make strategic decisions, they rely on people to provide them with support and correct information. ....They need to build rapport with them.*

This is what Student, Spencer had to say:

*In the past, accountants just worked with numbers. Nowadays, we hear accountants are doing more than just reporting numbers.....they interact with the rest of the organisation, from lower-level staff to executive staff.*

Student, Jane, added to this point, mentioning that

*Accountants today are required to do other things like making strategic decisions for the company.*

Student, Carl added to this view:

*Because CAs interact with clients daily, they should have good soft skills. Accountants are even involved with the marketing of their organisations....When they present business ideas to their clients and offer solutions to clients, they have to be convincing. They have to make the numbers talk.*

Student, Jane also indicated:

*I would also, if you have technical skills and cannot communicate these, and you cannot write a report on what you know, it's no point having the knowledge. In the same way, if you can't make a presentation on like, findings, then there's no point in you having that knowledge to yourself if you can't be useful about it.*

Student, Spencer added:

*Having the basics is good..... Communication and critical skills are key for us to survive during articles.*

Another point that also relates to the computerisation of many accounting functions and how this has called for accountants to differentiate themselves from the duties that can also be performed by the computer, Student, Ntokozo's view is captured in the following quote:

*I know that you can be good technically, but if you cannot be convincing to someone and you are unable to communicate financial results orally, then why are you there because a computer can do exactly what you can do.*

Student, Carl introduced a view related to how accountants could use pervasive skills to perform their duties to the required standards, thus justifying the high salaries the professionals tend to receive. This is what he said:

*I know of some people who are not necessarily good academically but are very convincing because of their ability to express themselves. I also know some who are academically strong, but because they are always quiet, they do not come across as smart. As a CA, you need to be convincing. You need to convince your employer that they need you, given your salary.*

This sub-theme also highlighted the need for accountants to interact with people from different backgrounds and levels because of their involved professional job responsibilities. The views of the participants are captured in the quotes that follow:

Academic AA shared:

*The ability to interact with other people from different cultures and backgrounds is important.*

Academic, GG added to that by saying:

*They want their accountants to be able to relate with clients.....Employers are looking for graduates who can negotiate with clients and those who will win the confidence of clients.*

Academic, RR believes that for the work of an accountant to be performed accordingly in a professional space, the accountant has to relate and build rapport with those (who are at a level lower than that of the accountant) who supply them with information necessary for them to perform their responsibilities. This view is captured in this quote:

*You need to go talk to them. In all these different departments, you need to bring yourself to their level. Because they do not understand where you are coming from, asking at a high level.*

Academic, JJ also shared the same view, adding that:

*They now interact with people from different backgrounds, culturally, socially, and economically. They have to understand how other people think and act. Can you imagine going to the UK for business reasons and being unable to communicate effectively with other accountants from that country? They are also expected to be able to solve more complex problems like FOREX transactions.*

### **Discussion of results: Revised job responsibilities of accountants**

This sub-theme emerged from the prominent views of both sets of participants who, in the main, agreed that the professional responsibilities of accountants in public practice and business have changed from working predominantly with numbers to more intricate roles. This finding suggests that, in light of the current business environment, accountants are taking on significantly more organisational responsibilities, which has somewhat shaped the skills expected of these professionals. Similar findings have been reported globally.

According to Jeremiah and Daferighe (2019), an accountant's job description has expanded to include more than conventional bookkeeping, reconciliation, historical reporting routines, and verification, a hallmark of these twenty-first-century developments. Also, according to Ghani et al. (2008), today's accountants need various skills to operate as management consultants, financial analysts, tax specialists, business process management consultants, and other roles. Also, in agreement, Ramlall and Ramlall (2014) claimed that these reforms had given accountants a broader scope.

This evidence highlights the importance of skills and attributes other than technical skills in the accounting profession today. This result is consistent with prior research, which found that current accounting developments have resulted in a rapid transition in terms of the skills and competencies needed, necessitating a greater emphasis on pervasive skills such as

communication and critical thinking (Jackling and De Lange, 2009). Moreover, according to Merino and Aucock (2017), professional accountants should aim to exhibit their technical and non-technical abilities and traits to be at the forefront of progress by establishing and driving change to stay relevant.

According to the participants' views, their added job responsibilities called for the demonstration of relevant pervasive skills such as communication skills by these professionals. As suggested in several studies, employers of accounting graduates confirm this, evidenced by their constant call for these pervasive skills from their recruits. Indeed, as previously indicated, pervasive skills are fundamental in the accounting profession for professional accountants to effectively contribute to their broader roles within the organizations (Zureigat, 2015). Based on the study findings and a review of the literature, it appears that employers have a greater need for accountants with solid communication skills who can conduct themselves professionally in front of clients, which most believe will ensure their staying power in the accounting profession.

Most participants shared how unlike in the distant past, accounting professionals cannot just prepare financial statements; today, in addition to that, they have to explain these statements verbally to management in meetings, thus calling for good communication skills. Participants also pointed out that in making meaning of the numbers, in big organisations, the accounting professional must interact and communicate with the various sections/departments that have generated those numbers and think critically about those numbers. If there are discrepancies or problems with the numbers, the professional should have problem-solving, decision-making, and communication skills. They further explained how unfortunate it would be if an accounting professional could undertake his/her responsibility to the required standard but fail to articulate such information to clients because of poor communication skills. Cobo (2013) observed consistent findings, concluding that pervasive skills are more vital to accountants, especially those in accounting firms, due to the high level of client interaction they have in today's involved accounting function.

In the auditing space, participants pointed out that the responsibilities of the accounting professional entail talking to clients regularly. Participants further explained that in addition to good quality work, the accounting firm has to be known for having an auditing team that can clearly articulate whatever they need to be informing the client about so that the client is not left unsure. Another participant expanded on this point and added that it seems the right thing

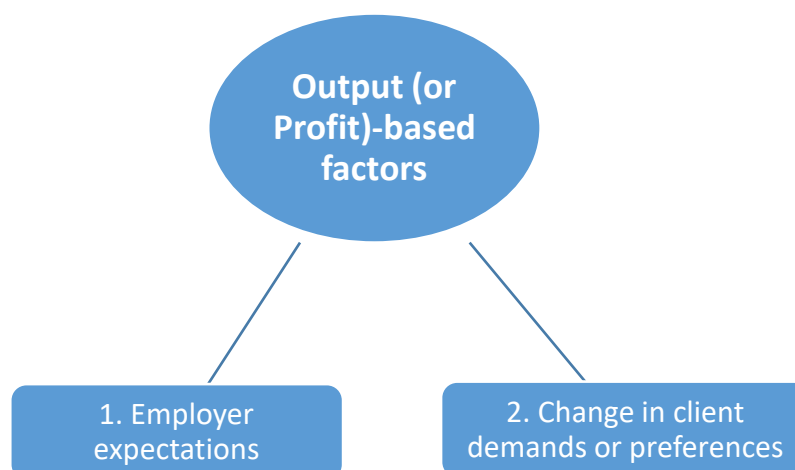
to do is to start connecting with the client before offering them professional services, referring to professional accountants who work in audit environments. Some participants went on to explain how accounting professionals, due to their job responsibilities, are to be like value-added services; thus, they must offer diverse skills.

This sub-theme highlighted the need for accountants to interact with people from different backgrounds and levels because of their involved professional job responsibilities. Participants believed that modern-day accountants need to have the critical pervasive skills to effectively interact with others in a professional space, resulting in better financial reporting and efficient audits. The views shared by the aspirant accountants echoed those shared by academic participants. They also believed that professional accountants are no longer acting as number crunchers and have to possess the ability to interact with parties from outside and from within the business. Some participants felt that today's professional accountants occupy positions that necessitate them to interact with different parties, within and outside the organisation, who may be at different levels. The participants believed that a good professional accountant would be one that can bring themselves to the level of those they are interacting with. Those that supply the accountant with the information he/she requires may be in different departments, some of whom may be at low levels or from different backgrounds, who may appreciate an accountant that can interact with them at their level and relate to their backgrounds (cultural, social, economic). Sin et al. (2011) also reported that accounting graduates must have the pervasive skills required for perfecting the art of connecting with and understanding people and their emotions.

One participant described how professional accountants often rely on other parties within the entity, who may be in different functions, departments, and levels, to supply them with information that would enable them to make strategic decisions and that in gathering that information, professional accountants have to build a rapport with other staff members in the business. Failure to interact or to build rapport may hinder the performance of their day-to-day tasks. Participants, therefore, believed one needed to connect with people before starting to communicate with them as a professional accountant. Bouyer (2011) came to the same result, stating that firms prefer accounting graduates with a global perspective, i.e., those who can work in various teams and communicate with people from varied cultural contexts.

Based on their professional experience in the accounting/auditing fields, academic participants reported that in professional spaces, an accountant/auditor that can relate with clients is ideal as they would easily win their confidence. This aligns with Sarapaivanich and Patterson (2015), who argue that clients, particularly small-medium companies, can use effective communication to assess service quality, such as audit quality, value, and client retention intentions. Another participant shared that for the work of an accountant to be performed accordingly in a professional space, the accountant has to relate and build rapport with those (who are at a level lower than that of the accountant) who supply the accountant with information necessary for him/her to perform his/her responsibilities. Some even expressed how unfortunate it would be for a professional accountant to travel to another country for business purposes and then be unable to communicate and interact with people from different contexts/backgrounds. In such cases, some participants felt that the critical pervasive skills, coupled with technical expertise, would rescue the accountant. This finding is consistent with what previous scholars have put forward that having the capacity to engage with clients is critical in a time when most firms are basing their endeavours on client/customer expectations in order to get a strategic advantage (Vijayalakshmi, 2016).

### **Main Theme 3: Output (or Profit) -based factors**



**Figure 3.5 Main theme 3 with sub-themes**

**Source: Self-generated**

The naming of this theme was also guided by Samagio and Rodrigues's (2016) conceptual model. As shown above, in Figure 3.5, this theme had two sub-themes.

### *Sub-theme 1*

#### **Employer expectations**

The study participants felt that the change in employer and client expectations of accountants had caused a shift from primarily technical skills to more pervasive skills to respond to the profession's needs. Participants shared their views based on their personal experiences in the professional accounting field and what they have observed taking place. Participants explicitly brought out the concept of changes in employer expectations of accountants in the views they shared, as revealed:

Academic, EE felt:

*A lot of potential employers were having a problem with graduates where a lot of them would go into the workplace and lack these sorts of skills.*

Academic, GG echoed the same sentiments stating:

*We have noted a shift with employers from wanting very technical graduates to suddenly wanting them to have, you know, both sets of skills, technical and soft skills.*

Another academic participant also added:

*Accounting firms want people that are full of respect, and those are the people that drive the firms. (Academic, LL).*

The requirement by employers for accountants to consider the type of service their offer to their clients and how this has translated to pervasive skills getting the much-needed attention in accounting is also captured in Academic, DD's comment:

*I think the push to be more service-oriented that we see now is immitigable.*

Academic, GG in the following quote shows that employers today are changing their requirements from accounting professionals. The view shared in captured as:

*We have noted a shift with employers from wanting accounting graduates that are very technical to suddenly wanting them to have, you know, both sets of skills, technical and soft skills.*

According to Academic, RR:

*Employers are saying to accountants, so give us a picture of what these numbers are saying. They want the story behind the numbers..... On a more executive level, from my previous experience, not only do we want you (accountant) to tell us what the numbers mean, but now we want you to play around with the numbers. Give us a what-if analysis based on different scenarios.*

The views of aspirant accountants did not differ from those shared by academics in accounting. This is evident in Student, Spencer's articulation:

*The recruiters are now requiring more and more soft skills. You see in job adverts that these skills are now required.*

He also highlights the importance of keeping a positive attitude and having an analytical mindset at all times as an accountant in the following quote:

*A client is not going to accept a firm whose professionals have 'crappy attitudes.' Clients are also looking for accountants who can think outside the box and who can offer creative solutions to problems.*

Student, Ashley agreed with Student, Spencer's view, adding that:

*Even when you look at job advertisements seeking CAs, these skills are indicated in the job advertisements because employers are seeking individuals that will be able to fit into the work environment and adapt to the changes quickly.*

Student, Bradley voiced his concerns regarding employer requirements and expectations of accountants, saying:

*It's concerning to know that employers look for these skills when employing accountants. This will affect our ability to get jobs after graduating.*

A different view, still on the same sub-theme, was presented by Student Stacy in her comment:

*I see this issue differently, I guess. I think that the more CAs and other accounting professionals registered with other professional bodies like the SAIPA, ACCA, and CIMA, the more employers are going to be demanding of accounting professionals, seeing that the supply is high. This will obviously bring about change.*

## **Discussion of results: Employer expectations**

This sub-theme emerged very strongly from almost all the participants. The participants believed that the change in the employers' expectation of professional accountants has shifted from primarily technical knowledge to more of a combination of technical and pervasive skills to respond to their needs. The participants shared their views based on their personal experiences in the professional accounting field and what they observed in accounting divisions. Through the analysis, it emerged that employers were having challenges with accounting graduates who enter the professional accounting workplace lacking in pervasive skills. Low et al. (2008) came to the same conclusion, stating that accounting graduates' employers focus on obtaining the optimal set of skills and values from new entrants. It was also revealed that employers seemed to prefer service-oriented and respectful professional accountants. Bancino and Zevalkink (2007) propose that businesses benefit from these pervasive skills since they enable employees to give better service. Some scholars also argue that employers gain financially from employee skills since they help the company run profitably (Kwon, 2009).

Together with that, the evidence pointed to the fact that employers perceive these accountants to be the drivers of the organisations they work for. Moreover, from the data, it appeared that employers today wanted accountants to tell them about the numbers and be able to explain what the numbers mean in simple terms. This suggests that having good communication or presentation skills is critical in surviving in the accounting field, now more than ever. Demonstrating employer's preferences with regard to pervasive skills, Hassall et al. (2005) compared and contrasted employer perspectives on which prevalent skills they considered were required in the UK and Spanish contexts and found that oral and written communication skills, as well as good listening, were found to be the most important for employers in the UK, according to the data they supplied. Employers' preference for communication skills has been revealed in other research studies (Hassall et al., 2005; Montano et al., 2001; Sithole, 2015). In reality, these abilities and skills are widely recognised as necessary for accounting professionals worldwide (Viviers, 2016; Hancock et al., 2009; Gardner, 2017; International Accounting Education Standards Board, 2010).

The data in this study further revealed that employers expect accountants to report the figures, analyse, 'play around with the numbers, e.g., perform 'what if analyses' based on the figures, and provide workable solutions given different business scenarios. This finding shows the importance of having an excellent analytical mindset and solid problem-solving, decision-making, and critical thinking skills in the current accounting environment. These findings may also suggest that some employers believe that pervasive skills may enhance the application of technical accounting knowledge acquired through the academic programme. Indeed, employers' preference for accountants who can think in higher levels of abstraction and apply their minds critically has also been reported in other research studies (Aman and Sitotaw, 2014).

Aspirant accountants (accounting students) also shared that they had noticed that employers were listing pervasive skills as requirements for accounting jobs in advertisements for accounting vacancies. This finding was an interesting observation as it revealed that these skills are no longer discovered only during the interview phase, but employers were voicing their preference for these skills explicitly in the job advertisements. From the data, it emerged that the employers' call for pervasive skills might stem from the employers preference for candidates who would be able to use these skills to fit into the professional work environment within a short time. This finding backs up what was stated in *The Accounting Insider* (2018) article, that businesses are becoming more stringent in their requirements, looking for employees who not only have technical skills but also have a firm grasp on pervasive skills and are the 'right cultural fit' for the organisation. Also reporting similar findings, Strauss-Keevy and Maré (2014) revealed that employers view critical thinking, problem-solving, and communication abilities, among other qualities such as leadership, to assist develop employees' success and longevity in accounting and business occupations.

From the data, it also emerged that the aspirant accountants were somewhat concerned about the employers' added call for pervasive skills suggesting that this added focus may affect their chances of securing professional employment in the field.

The employers' call for pervasive skills supports the central premise of the Human Capital Theory that considers the combination of technical proficiency and skills and attributes when assessing one's economic usefulness (Cania, 2014). The HTC suggests employees with high

levels of skills and education can produce more, using the same factors of production: materials, physical assets, and time) than those recruits without these traits (Spring, 2015). The highlighted benefits associated with having solid pervasive skills are why employees who possess them are preferred. Indeed, the HCT views education as an economic ‘good’ that provides utility on consumption and as an input for producing other goods and services, thus improving economic growth. With this in mind, it is not surprising that globally there is more emphasis on higher education to improve the pervasive skills of their human stock for greater productivity (Parvaiz et al., 2017b). In fact, the employers' heightened emphasis on graduate skills, work readiness, and preparedness through the inculcation of pervasive skills in higher education during the academic accounting programme echoes a portion of the human capital theory (Yorke, 2006).

Using the Human Capital Theory lens, it is clear that aspirant chartered accountants add value to their respective places of employment through enhanced performance (Zehrer and Mossenheter, 2009)

### *Sub-theme 2*

#### **Change in audit client demands or preferences**

Participants shared how audit clients have changed their expectations (in terms of roles and skills) from accountants. This is clear from the views of the participants who commented as follows:

Academic, AA had this to say:

*The audit firms want these skills; they want someone to take charge, not a professional that is to be managed or micro-managed.*

The same participant also added that:

*As I was telling you...A lot has changed; I can think of a number of things that might have changed things. You see, the other thing is that audit clients now demand more from their auditors. An audit is expensive, so clients expect the best and more from their auditors.*

Academic, RR also added:

*Clients want the best possible service.....Service is big these days. Clients expect a lot from their accountants. If you had to choose between two service providers, you would most likely go for the one who looks as if they are in charge, who walks into the boardroom looking like they are in charge, carrying a nice, professional folder with all the things (services) they will do for you, and they tell you confidently about their services. You would actually go for the person who is telling confidently than one that is not convincing.*

According to Academic, JJ:

*If you address the client in a way that makes them unsure about the services they are about to receive, you are unlikely to secure that contract. Maybe the one with poor communication skills can do a really good job but sadly cannot articulate what they are trying to say. On the other hand, the one who is a good communicator, even though maybe their services are very expensive, but as a client, you feel more comfortable with someone who comes across as professional. As a client, I would not be comfortable giving my business to someone who does not come across as confident. I would prefer someone who seems confident and convincing.*

Student participants also shared views similar to those of accounting academics; they made the following comments as captured in the following quotes:

*Audit and accounting clients want CAs that can perform what the computers cannot perform. They need professionals that can add value to their business. An example I can think of is that a computer cannot sit in the boardroom amongst other people to present its ideas and solutions to problems.....You see, computers cannot use their experience as they cannot acquire experience, as well...Through experience, accountants face successes and failures that could serve as lessons in future dealings..... and hence their experience adds value to the organisations.....Clients want to see if you can think outside the box. They want to see if you have a certain scenario, do you think differently from how a normal person would think. Can you solve a problem? Can you make the problem better? Can you change it? How can you change it? Those types of*

*questions. If you answer these questions and can do those things, then clients will likely take you on. (Student. Spencer).*

*Clients are also looking to protect their reputation; that is why they want to be serviced by the best accounting professionals. Making decisions is not just about the knowledge you have from the numbers; you as an accountant need to make your decisions based on your professional judgement. (Student, Linda).*

Student, Spencer further added:

*When clients evaluate whether or not to engage an auditor, they look at technical and soft skills. Clients are looking for more. All audit firms can offer technical expertise, but not all professionals can offer more than just technical knowledge. Clients want more value-added activities. They want someone who will better explain their financial situation and who is a 'human being.' A client is not going to accept a firm whose professionals have 'crappy attitudes.' Clients are also looking for accountants who can think outside the box and who can offer creative solutions to problems.*

Student, Ntokozo also said:

*They want proper CAs with proper skills they can trust in terms of skills and competence. They are not looking for someone who is just going to do a tax computation; they want someone who can do so much more, including advising them on tax matters. That is why the shift is happening.*

### **Discussion of results: Change in audit client demands or preferences**

In this theme, more is learned about how the preferences of audit clients have changed and how that has shaped the skills and competencies expected of accounting professionals working in audit environments. Based on their public practice experience, academic participants shared how audit clients have changed their expectations of accountants (in terms of roles, responsibilities, and skills). Tempone et al. (2012) came to the same conclusion, stating that due to changes in the accounting environment, such as increased complexities of financial activities, a fast-paced business environment, and constant changes in client and professional expectations, non-technical skills have become more pertinent. In fact, clients nowadays can,

more than ever, stipulate the type of information they want and need, as well as how it is disclosed to them, according to Albrecht and Sack (2000), who were among the first scholars to argue that, considering the access to information and competitive pressures, clients can now, determine the type of information they want and need, as well as how it is reported to them. From the data, it appeared that even in audit firms, the managers seemed to prefer accounting professionals who can take responsibility for their duties with minimal supervision and professionals who do not need to be managed or micro-managed.

Another point that emerged from the finding suggests that because audits are generally expensive, audit clients expect the best possible service from their auditors, whom they expect are suitably qualified in terms of technical expertise and equipped with pervasive skills. This finding highlights that having a balanced set of skills that support the provision of quality services is vital in audit environments. This result is consistent with the findings reported by Fox and Royle (2014) that investing in long-term human capital is thought to enhance company innovation by helping organisations like accounting firms to develop new and better approaches to meet the needs of their clients.

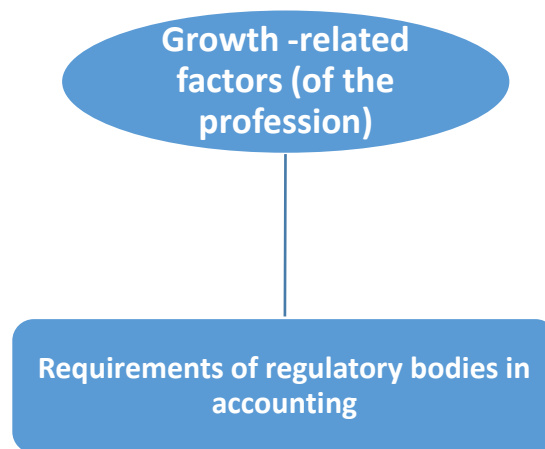
Another view that emerged suggested that when choosing their auditors, clients are more likely to select a firm whose staff are confident and appear in charge and who carry a professional image that can be associated with good quality service, i.e., those with a 'professional presence.' From the evidence, it appears that audit clients tend to prefer professionals with the appropriate communication skills that would make them seem convincing and one who can confidently explain the type of services they offer. To expand on this point, it was revealed that an accountant/auditor with a poor command of communication skills, who would be unable to address his clients in a way that indicates the quality of the service he is about to offer to the client, is not likely to secure contracts, despite having an excellent technical ability. Jafaar (2018) made a similar point, highlighting the need for effective communication skills to ensure client satisfaction. Also, this finding suggests that clients tend to assume that all professional accountants offer the same technical competence and that what differentiates them is their pervasive skills. This evidence correlates reasonably with Ahadiat and Martin (2016), who argued that to be successful in public accounting, you must meet customer requirements, establish an excellent reputation in the business, and provide high-quality service. These findings also support the proposal by the HTC that its employees determine a company's success or failure.

Overall, the data analysed suggested that audit clients wanted chartered accountants who could perform tasks that computer systems could not perform and expected these professionals to add value to their businesses. For instance, clients would not look for an auditor/accountant that will just perform or verify technical functions like tax computations, but many would prefer those who may do more than that, e.g., one who may advise them on tax matters. The participants believed that when a client evaluates whether or not to engage the auditor, some of the things they would consider are the skills and competence of the auditor. They further pointed out that today's clients are looking for auditors who are 'human beings' – who are understanding and accommodating and can easily communicate with and relate to. Sugahara et al. (2010) also suggested the same, arguing that the dynamic accounting landscape necessitates the development of a new type of accountant with pervasive skills such as communication, teamwork, leadership, problem-solving, analytical, and interpersonal skills.

The participants felt that accounting professionals were expected to be problem-solvers and critical thinkers who can communicate financial information to clients using their skills, which software programmes would not ordinarily have. They shared how an accountant who can be creative and 'think outside the box' would be more valuable to the client than someone with just technical knowledge. They explained that using critical thinking and problem-solving skills would enable the accountant to analyse and weigh scenarios and then assist the client in selecting the best possible options. Another participant emphasised that in providing the best solutions to client problems, the accounting professional would need to rely on their excellent decision-making, which would be based on their professional judgment. This result highlights the importance of good decision-making, critical thinking, and problem-solving skills for an accountant in adding value to the client. These findings align with previous results that suggest that businesses today demand that their professional staff be able to write well, communicate effectively, and apply critical thinking to complex financial transactions (Tran, 2013).

Another issue that was revealed in the analysis relates to reputation risk. Participants believed that another possible reason clients would want to engage accountants/auditors with the appropriate levels of pervasive skills is to protect their reputation. Clients in this regard would prefer to be serviced by suitably skilled accounting professionals. Indeed, as put forward by Chan and Ho (2000), to stay in business, accounting firms must provide quality services to their clients, and offering quality services can be accomplished by employing quality staff.

## Main Theme 4: Growth-related factors (of the profession)



**Figure 3.6 Main theme 4 with sub-theme**

**Source: Self-generated**

Guided by the Samagio and Rodrigues (2016) conceptual model, this last theme, shown in Figure 3.6 above, was named 'Growth-related factors.' This theme captured the views of research participants that suggested that one of the possible reasons the profession has more emphasis on pervasive skills is because there is a need to advance or grow the profession, and this is communicated through a call from professional bodies in accounting.

### *Sub-theme 1*

#### **Requirements of regulatory bodies in accounting**

Under this theme, participants shared how professional bodies in accounting call for pervasive skills, saying that that could be one of the reasons there has been an added focus on pervasive skills in the accounting profession. The quotes below capture the views of participants:

Academic AA shared:

*SAICA has gone the route of promoting various pervasive skills..... they do not intend producing accountants that are only good technically.*

Academic, RR added that:

*SAICA has revised the curriculum because of the changes that have taken place in the profession.*

The views of accounting students did not differ from those of academics on this sub-theme; this is evident from their assertions:

*SAICA has indicated that before we graduate, we need to have these skills, and it's imperative for us to, you know, have these skills. (Student, Ashley).*

*I know that it is a requirement from professional bodies for CA's to have pervasive skills before they start their articles so that they can perform better at work. (Student, Linda).*

*Because of the various professional bodies there are today, it won't be surprising to find out that firms and professional bodies compete for the best students. (Student, Spencer).*

### **Discussion of results: Requirements of regulatory bodies in accounting**

This sub-theme emerged from the views of study participants that were thematically analysed. Under this theme, participants shared how regulatory and professional bodies in accounting call for pervasive skills, saying that that could be one of the reasons there has been an added focus on pervasive skills in the accounting profession. Participants shared that professional bodies such as the SAICA promote the acquisition and demonstration of pervasive skills and attributes by their members as the intention of such bodies is not to produce only technically skilled accounting professionals. Indeed, the International Federation of Accountants (IFAC) recommends that an accountant's talents include a mix of technical and pervasive skills (IFAC, 2007).

They revealed that the SAICA has even revised the professional accounting curriculum for an added focus on the pervasive skills and attributes, thus highlighting or allowing these skills to come to the fore. By promoting the development of pervasive skills and attributes, the participants felt it was a way of showing prospective accountants that they would not be relevant in today's accounting field without these skills. Participants from the aspirant accountants group felt that the added focus on pervasive skills in the professional accounting curriculum was designed to alert them that they should develop or improve on these skills before starting their professional training. That would prepare them for the demanding professional accounting work environment. Indeed, in South Africa, the local professional association for chartered accountants has called for a greater demand for pervasive skills in the accounting profession through their introduction of the SAICA introduced the Competency Framework, which was created and executed to keep CAs relevant in an ever-changing

business environment (SAICA, 2009; SAICA, 2015a). This finding also echoes other national professional bodies' calls for pervasive skills, such as the AICPA, which produced The Core Competency Framework for Entry into the Accounting Profession, which outlined the prerequisites for pervasive skills in new entrants to the profession (AICPA, 2010).

Another take on this issue was shared by a participant who had a different view on the matter. This participant believed that professional bodies are calling for these skills because of competition among the various accounting professional bodies. The participant shared that she believed that professional bodies want their members to display the best technical knowledge, pervasive skills, and attributes to stand out from other professionals registered with other accounting professional bodies. Doing so ensures that members of such professional bodies attract and keep the best clients through the members' skills and technical expertise.

These findings align with various standard-setting bodies and professional bodies promoting the added focus on pervasive skills, even at an international level (IFAC, 2014b). With this in mind, professional bodies have repeatedly emphasized the need to improve skills development during academic and professional training to promote graduate employability. Indeed, this finding backs up the IFAC's IES3 standard, which outlines the main components of global accounting education and the abilities required of professional accountants, including intellectual, technical, and functional skills, as well as personal, interpersonal, organisational, and business management abilities, emphasising the importance of pervasive (generic) skills in the accounting profession (IFAC, 2017a). Moreover, it seems that the argument put forward by the IFAC is that new entrants must grasp global markets and cultural dimensions, be able to produce and evaluate complex financial data, and have strong communication skills (IFAC, 2003), and some may perceive this to be a tall order for recently graduated accountants. The move to prioritize pervasive skills by professional bodies in accounting is in line with the HCT, as it views these skills as positive contributors to economic growth. These skills may also enhance the accounting profession's excellent reputation through its members' quality.

Overall, the findings under this theme support what has been concluded by Bunney et al. (2015) that business and professional bodies, whose judgments of university graduates have a significant impact on the economic benefit they provide to their employers, have been strong advocates for including pervasive skills into accounting courses. Moreover, this conclusion resonates with Low et al.'s (2008) notion that regulating bodies focus more on pervasive skills

because they want to ensure that all accounting professionals' behaviour upholds the profession's reputation.

### **Overall conclusion**

Based on this study's findings, it would seem that Higher Education should encourage or facilitate access to superior skills, knowledge, and other personal attributes because employees who have had access to the knowledge and skills from higher education or training are likely to be more ready, hence have shorter periods, if any, of unemployment than those who had no such access (Grubb, 1996).

Indeed, the projected greater productivity on the job, which translates to higher earnings, is stated to justify the investment in education and training by prospective employees and employers for already employed individuals (Schulz et al., 2013). Furthermore, because skills and knowledge gained through education and training enable employees to perform to their fullest potential (Kalfa and Taksa, 2015), employers and other stakeholders would likely call for prioritising these competencies and skills. Regarding the accounting profession, this way of thinking implies that all stakeholders involved in the education and training of future CAs are justified in wanting to ensure that these aspirant professionals have the necessary competencies, skills, and attributes to be highly productive and effective in a professional work environment.

The call for more emphasis on pervasive skills by all the stakeholders in accounting on a global and national front supports HTC's concept that skills and knowledge are vital in making organisations and economies productive, leading to economic growth. As an illustration, a more educated and skilled workforce is more productive on a national level, contributing to economic growth and improvement (Knight and Yorke, 2003).

Extensive research at the turn of the century revealed significant shifts in the forms of labour over the subsequent years. Essentially, such research shows an increase in non-routine activities and the volume of communication-related labour (Levy and Murnane, 2013). This revelation could be linked to the increasing importance of fundamental skills, such as critical thinking and others, which, taken together, constitute the foundation of a new twenty-first-century view of human capital (Levy and Murnane, 2004).

All in all, given that it has been declared that the investment in human capital is directly associated with increased revenue and profit in a business which can be aggregated with that of other entities, influence the country's economic growth, which is all attributed to the capabilities of the workforce (Schulz et al., 2013), prioritising skills development is vital for all developing economies. Indeed, according to the HCT, human capital gives a competitive advantage in the workplace because of its knowledge and expertise (Herling, 2000). With this in mind, it would seem imperative for a developing country like South Africa to take immediate action to enhance the human capital of the young population, especially those about to enter the workplace at the national level, or it will find itself decades behind in the global competition.

Based on the findings, the importance of skills development for economic growth and career success seems undeniable, but it is worth noting that all skills development should respond to industry needs as the Human Capital Theory purported. According to the Human Capital Theory, employees' skills and degree of competence are vital resources that are just as significant, if not more important, than other forms of capital, e.g., natural resources and infrastructure. The disparity between individual skills and those required in the workplace may even challenge nations' ability to achieve long-term sustainability and economic growth (Atanasovski et al., 2018). The aim is to produce graduates who will confidently undertake their activities per employer expectations, with minimal employer interventions introduced.

Pervasive skills are essential in fostering relationships amongst employees, which leads to business success according to the Human Capital Theory (Gardner, 2017). This view is consistent with that of Gibb (2004), who claims that these skills, which are also referred to as employability skills, increases the chances of candidates to gain employment, advance within the organisation, and enable them to contribute positively to the organisation's strategic direction thus promoting business success. Additionally, according to Nabi (2003), maximizing the utilization of graduate skills improves an organization's competitiveness. These views suggest that successful performance by individual firms can lead to long-term economic growth, more job possibilities, and economic advantages for the local community, resulting in positive social transformation as purported by the Human Capital Theory.

Possessing and demonstrating the right skills is essential for success in all disciplines. Pervasive skills are necessary for many professions, including accounting, and can no longer be regarded as 'nice to have' qualities. According to Nadziakiewicz (2016), pervasive skills are characterized by attributes and other cognitive skills essential for a successful accounting professional career. Employers perceive critical thinking, problem-solving, and communication skills, amongst other skills such as leadership, to help foster employees' performance and tenure in accounting and business careers (Strauss-Keevy and Maré, 2014). These skills are crucial in the profession for various reasons; one reason is their association with fostering lifelong learning in accounting graduates (Tan and Fawzi, 2017). Specifically, for accounting graduates to adapt to the ever-changing professional environment, they ought to display an array of skills technical and pervasive skills (Ahadiat and Martin, 2016).

Global Accountants Worldwide (2014) asserts that it is critical for professionals in the accounting field to have strong communication skills to keep up with the changing times. The report suggests that having a good set of pervasive skills, particularly communication skills in audit staff, will often set an audit firm apart, as audit clients assume technical skills to be the same across all firms. By all means, businesses gain from these pervasive skills because they enable employees to provide better service (Bancino and Zevalkink, 2007). In general, offering excellent service to customers and clients brings value and revenue. Employees with good communication skills can meet client needs. When an accountant has good time management and problem-solving skills, accounting tasks can be finished on time, thus avoiding unnecessary additional costs, which would be pleasing to the client. That is important in ensuring that the client is satisfied with the firm's services, resulting in improved firm performance.

More specifically, communication is one of the most effective skills for increasing profitability (Ramadi et al., 2016), and as a result, it is the most commonly utilized skill to assess employability (Osmani et al., 2015). In Spain and the UK, employers of accounting graduates also view communication skills and life-long learning as essential skills for professionals in this profession (Hassall, 2005). Helliard et al. (2009) concur with this view and indicate that the audit process (one of the specialist areas of accounting) involves teamwork, group decisions, and judgement by its very nature. This goes to show that even in a technical workplace environment, pervasive skills are critical and employers regard these skills highly. Other scholars support this notion (John, 2009).

Indeed, the added focus on graduate employability through acquiring and demonstrating pervasive skills echoes the Human Capital Theory (Yorke, 2006). Graduates who can contribute to the economy faster by being productive and positively contributing to the fast-tracking of economic growth within a country are preferred by employers. However, some authors argue that equating skill acquisition with job market success ignores the essential role of other capitals that exist outside of the skills narrative (Jones and Abraham, 2008).

### 3.10 Chapter summary

This chapter presented a discussion of the Human Capital Theory as an overarching framework for addressing the first research question, which focuses on the changes that have taken place in the accounting profession that could have possibly resulted in pervasive skills coming to the fore. The following chapter focuses on the second research question making up this broad study. The second research question is concerned with identifying and ranking pervasive skills and attributes perceived as critical for securing entry-level employment and career success in the accounting field.

## CHAPTER FOUR

# PERVASIVE SKILLS FOR ENTRY-LEVEL EMPLOYMENT IN THE ACCOUNTING PROFESSION

### 4.1 Introduction

The previous chapter focused on the literature review on the current changes that have taken place that have likely shaped the skills and competencies required by different stakeholders of accounting graduates. The review highlighted how such changes have led to a call for the prioritization of pervasive skills.

This chapter focuses on the second research objective of the study. This research objective covered research question two, which sought to identify the pervasive skills ranked highly for entry-level employment in accounting by accounting students and academics.

### 4.2 Employment of accountants: public practice, business, and self-employment

Accounting professionals are employed in various sectors of the economy. Many accountants are employed in public practice, outside public practice (in business, private sector), public sector, academia, and some are self-employed (Sikka et al., 2007). For those professionals employed outside public practice, their primary responsibilities in the respective organizations that employ them include: being informed about tax concerns, performing financial accounting duties, managing the internal audit function, producing cost and management accounting information and variance analysis, and they also work on special projects (SAICA, 2008). Those CAs in academia, some of whom work as consultants as well, are required to contribute to the profession through research and to formulate professional standards in addition to teaching in the accounting field (SAICA, 2020b). The duties of chartered accountants in public practice are outlined in Table 7 below:

## Duties of CAs in Public Practice

### **In Public Practice**

**Auditing/assurance:** Auditors review company systems, financial statements and accounting principles while checking the accuracy of the company's financial records. The auditor is responsible for issuing an opinion on whether or not annual financial statements fairly present a company's results and financial position.

**Taxation:** CAs in public practice advise their clients on how to lawfully minimise their tax liabilities through efficient tax planning. They also submit tax returns, resolve tax problems, advice on tax implications and litigation matters and generally aid clients with their personal financial affairs. Financial Management. Budgeting, cash flow forecasting, business plans and advice regarding corporate structures are all skills that clients expect from their advisors.

**Management Consultancy:** Advising clients on the management of their businesses, to make them more profitable and effective. CAs often have an intimate business involvement with their smaller clients.

**Secretarial and Accounting Services:** Design and implementation of accounting systems, capturing and recording financial data and assisting clients with compliance with various requirements of the Companies Act.

**Information Technology:** Development of computer information systems to enhance business performance.

**Secretarial and Accounting Services:** Design and implementation of accounting systems, capturing and recording financial data and assisting clients with compliance with various requirements of the Companies Act.

**Management Accounting:** Delivering up-to-date information on the status of a company, enabling management to make decisions about the day-to-day running of the business.

**Corporate Finance:** This involves acquisitions and sales of assets on behalf of clients, including negotiations and due diligence work.

**Forensic Accounting:** This specialist area involves investigative accounting where fraudulent accounting may be suspected. It can mean serving as an expert witness if a case goes to court.

**Insolvency:** If a company is in trouble, its chances of recovery must be assessed. Receivers are involved in selling a company as a going concern, and liquidators in selling off assets to pay creditors. An administrator plans for the organization's survival through restructuring.

### **Source: SAICA, 2020b: 1**

Accountants also occupy various positions, depending on work experience, academic qualifications, and skills/competencies. Many accountants occupy management and executive positions both internationally and locally and tend to rise to these positions reasonably early in their careers. Regarding the local context, South Africa has been revealed as having some of the best auditing and accounting specialists in the world (Groepe, 2013). It has been stated that chartered accountants make up two-thirds of the top business leaders of highly ranked listed company CEOs (SAICA, 2014b).

At most, qualified Chartered Accountants go on to become auditors, top business executives, and business leaders. Some remain in public practice, and some opt for other options such as self-employment and joining the public and private sectors. Given the positions they often occupy after qualifying, it would seem obvious that they ought to be equipped with the appropriate competencies and skills to be relevant in their positions (Rudman and Sexter,

2020). To echo the same sentiments, “Accountants ought to add value to business entities as responsible leaders” (SAICA, 2014b: 6).

In the South African context, a survey conducted by SAICA revealed that there were 4 035 directorships in total in South Africa, with 1 025 (25.4%) held by chartered accountants. In addition, chartered accountants make up 74.3 percent of Chief Financial Officers (CFOs) or financial directors and 21% of Chief Executive Officers (CEOs) or management. Moreover, almost two-thirds of the businesses owned by chartered accountants are among the top 200 (SAICA, 2014b). This shows that chartered accountants do indeed work in different sectors, occupying positions from entry-level, middle management to executive positions and varying work contexts. Again, these statistics paint a picture that suggests that chartered accountants' financial knowledge and expertise are highly valued. The value of accountants is not only seen by employers but by investors too. According to Solomon et al. (2016), providing financial data through accounting records indicating company performance and financial position is critical for investors' decision-making, forecasting expected performance, and assisting them in choosing the best portfolio for their investment, as well as in equity valuations.

According to Jui and Wong (2013), accounting professionals' provision of quality services is based on three fundamental principles. The first principle is that for a service of this nature to be provided, there ought to be accounting rules and standards that guide the accountants, as well as an ethical code of conduct. The second principle is that there should be quality audits on financial statements produced by the accounting system in the form of audits. The third principle relates to regulation: regulators of the accounting profession are essential for enforcing rules and standards as well as for promoting the profession. International accounting and auditing standards, tax legislation, corporate governance best practice recommendations, and professional codes of conduct are among the legal and regulatory obligations that accounting practitioners must adhere to (Kestel, 2017).

#### 4.3 Accounting graduates as trainee accountants and junior accountants.

Aspirant accountants enter the accounting profession for varying reasons and have different expectations and understandings of the profession. In South Africa, it takes an average of seven years for aspirant accountants to achieve the Chartered Accountant, CA (SA) status. Within seven years, aspirant accountants are expected to achieve competencies and skills as indicated in the SAICA Competency Framework; this process involves the academic and training

programme and, in addition to that, professional examinations (SAICA, 2010). More specifically, prospective members who have achieved a Certificate in the Theory of Accounting (CTA) must sign a three-year training contract with a certified training office to become members of the SAICA. That is to say, members of the South African Institute of Chartered Accountants (SAICA) must complete a SAICA-accredited qualification, the Certificate in the Theory of Accounting (CTA), followed by a learnership programme as trainees at registered training offices (SAICA 2017). SAICA, as a regulating organization, establishes the substance of the training programme that must be completed before a prospective member can become a member of the SAICA.

Many Bachelor of Commerce: Accounting degree students, upon completion of the degree and the post-graduate Certificate in the Theory of Accounting, enter into training contracts (articles) as trainee accountants, and to some, this may be the first work experience. In the South African context, for an accounting graduate to become a member of the South African Institute of Chartered Accountants (SAICA), they should have successfully completed the academic programme, which is made up of an accounting degree with a SAICA accredited higher education institution and a post-graduate qualification in Accounting – the Certificate in the Theory of Accounting (CTA) or equivalent (SAICA, 2010). After obtaining these qualifications, a three-year training period must be completed to obtain practical experience. Training contracts provide accounting graduates with a platform to obtain practical work experience. Within the practical training period (training programme), the prospective accountants need to pass the prescribed qualifying examinations, the Initial Test of Competence (ITC), followed by the Assessment of Professional Competence (APC), the second part of the qualifying examinations.

In as much as many aspirant CAs complete the academic programme with optimistic expectations of the profession, in reality, many such graduates face various challenges in the workplace. Despite the scarcity of research on the early employment challenges faced by entry-level accounting professionals in South Africa, international studies provide extensive research that suggests that entry-level accountants face some challenges upon entering the workplace. Given the critical roles played by trainee accountants in accounting firms, it would seem critical for stakeholders in accounting, more especially the accounting graduates, to recognize and understand the challenges that might arise in the early stages of their careers in order to seek

solutions to these challenges. One of the challenges faced by entry-level accountants relates to transitional challenges. Correspondingly, some studies indicate that the transition of graduates to the workplace has gotten longer, more complicated, and more challenging (Atanasovski et al., 2018). Again, in a study conducted by Heang et al. (2019), designed to discover the early career challenges faced by recent accounting graduates in the workplace, it was discovered that they faced a variety of issues, including a lack of technical expertise, poor communication skills, shortage of information technology (computer application) skills, challenges with adapting to the work environment, ineffective stress and time management skills, and a lack of practical work experience. Recent graduates joining the workforce must, without a doubt, flatten the learning curve between knowledge acquired and real business application as new entrants. The inability to apply theoretical knowledge in a practical context has also been noted in the local context (Barac, 2009). Similarly, another local study conducted by De Villiers (2010) suggested that the higher education system in South Africa does not produce chartered accountants who can utilize their newly acquired knowledge and abilities in the real-world workplace.

It would seem then that graduates seem to find it challenging to fit themselves in the labour market, and this may be attributable to their poor command of pervasive skills (Wye and Lim, 2009), a concern echoed by employers about their skills levels, as they continually indicate that pervasive skills are lacking in recent accounting graduates (Drobosky, 2013; Schulz, 2008). Indeed, when an early graduate's skills fall short of their employers' expectations, their first job experience can be frustrating (Hakim, 2016). Indeed, employers favour more pervasive skills, according to several studies, because they allow employees to put their newly found theoretical knowledge to good use (Jackling and De Lange, 2009). Other early career challenges, in addition to the inability to apply theoretical knowledge in the workplace, were also identified by the accounting graduates themselves, including challenges related to communicating with others in the workplace, understanding their responsibilities, and working with others in a team setting (Lim et al., 2016).

Also highlighting issues relating to early career accountants, a study conducted by Kunz and de Jager (2019) revealed that new graduate entrants employed as first-year trainee accountants did not meet the expectations of audit managers, with the expectations of audit managers consistently exceeding their observations of the performance by newly appointed accounting graduates. In light of such expectations from employers, it is more than likely that many trainee

accountants face various pressures in the new and unfamiliar workplace. The pressure could also be brought about by employers' requirements for trainee accountants to produce work that meets the quality requirements and to complete work on time and within budget (Lang et al., 2016). Some grapple with heavy workloads and tight deadlines, with some finding it difficult to achieve a work/family balance. Not to mention that some accounting tasks may also be daunting to early career accountants, who may be still trying to transition from the desk to the office. This evidence corroborates findings suggesting that transitioning from higher education into a new workplace environment may also result in significant emotional issues for some accounting graduates (Jones, 2014).

In addition to the above-mentioned transitional challenges, early career entrants may face ethical challenges (FEE, 2016). These ethical challenges may be due to the fact that as new entrants, they may find it challenging to deal with people, especially those in positions of power, particularly in instances where those in power are involved in unethical practices such as misinterpreting or manipulating financial reports for personal gain (Jaafar, 2018). In contrast to evidence that presents a view that trainee accountants find it difficult to transition from the desk to the workplace, an alternative perspective illustrates that accounting graduates with strong pervasive skills experience reduced levels of discomfort and feelings of alienation when entering a professional work environment because they tend to engage with the culture and value of the work environment (Hamilton, 2013). This view is also held by Moore and Morton (2007), who suggest that strong pervasive skills would assist graduates in dealing with the challenges they face as new entrants in the workplace. To put it in another way, pervasive skills enable employees to adapt to internal and external workplace changes (Matteson et al., 2016).

Paul Korolkiewicz from KPMG (one of the leading accounting/audit firms) commented on the demanding nature of a professional job in accounting in a report by Accountancy Age (2016:2), saying, "We look to recruit people who are genuinely keen to play a role in our world but also with a sense of resilience. It is a tough job, and we ask a lot of people, and that's only going to continue as the world moves on, and it's important to recognise that". This comment paints a picture of the professional space that accounting graduates enter upon entering the workplace, which today seems to expect more pervasive skills such as interpersonal, intellectual, and personal qualities (Klibi and Oussii, 2013). It would seem then that trainee accountants must demonstrate pervasive skills during their training contracts as per the SAICAs Professional Skills Review (which groups professional skills into business ethics, management and

leadership, personal attributes, and information technology) and Competency Framework (SAICA, 2015a).

In contrast to evidence that presents the view that recent accounting graduates ought to demonstrate the pervasive skills identified as relevant in the accounting profession in the current dispensation, an alternative perspective illustrates that some accountants still portray the image of a stereotype accountant who is just a technical expert (Andon et al., 2010). On the other hand, it would seem obvious that employed accounting graduates with appropriate pervasive skills are assets for their respective organisations in creating a conducive work environment.

If the graduates lack pervasive skills, adapting to the professional work environment, which requires them to develop a rapport and to be able to effectively communicate (Kermis and Kermis, 2010), may prove challenging. Strong pervasive skills should assist graduates in dealing with these challenges; such skills should be instilled as early as possible as part of work readiness preparation. Moore and Morton (2007) support this view. As a matter of fact, being aware of what the workplace will demand of the soon-to-graduate accounting students would benefit these future accountants, thus providing them with motivation to devise and implement strategies that would better facilitate acquiring these skills and attributes.

It would seem that due to the nature of accounting work, which in many organisations involves teamwork and communication skills, these skills have become essential competencies in the accounting space (Cooper, 1997). As dated as this may be, it still holds in today's accounting environment, illustrating how vital pervasive skills are in meeting the demands of today's complex accounting environment. Much recent global research has been conducted to determine the pervasive/professional skills that aspirant accountants should possess just before beginning their traineeship (Abayadeera and Watty, 2014; Bui and Porter, 2010; Bunney et al., 2015; Chaplin, 2017; Crawford et al., 2011; Hancock et al., 2009; Jackling and De Lange, 2009; Tempone et al., 2012). From these studies, what has emerged constantly is that employers expect accounting graduates entering the accounting profession to demonstrate skills such as communication skills (Brink and Costigan, 2015; Camacho, 2015; Gray, 2010; Gray and Murray, 2011; Hassall et al., 2013), problem-solving (Eze et al., 2016; Klegeris et al., 2017; Sumaryati et al., 2020), critical-thinking (Abeysekera, 2009; He et al., 2013) and others.

Indeed, trainee accountants entering the professional work environment must keep up with changes in the ever-changing corporate environment due to rapid technological advancements and new economic developments. This involves accountants having multi-disciplinary abilities (Fouché, 2013) that allow them to adapt to changing circumstances (Lubbe, 2017). To put it in another way, employers anticipate graduates to be more adequately equipped than they are, resulting in a performance gap between expectations and performance. The deviation between the competencies expected by employers and the existing competencies displayed by graduates is referred to as the “expectations gap” (Bui and Porter, 2010). With this in mind, Bui and Porter (2010), according to a model they created, suggested that there are four main gaps connected with the development, acquisition, and demonstration of pervasive abilities by accounting graduates. The first gap termed the “expectations gap,” refers to the disparities in expectations across various stakeholder groups in accounting (final year accounting students vs. accounting graduates; final year students vs. employers; final year students vs. academics; graduates vs. accounting academics and employers vs. accounting academics). The second gap is the “performance gap,” which refers to variations in stakeholder perceptions of accounting graduates' level of competence after completing their academic degrees (as shown in the discussion on the last gap). The third gap is the “constraints gap,” which refers to differentials between the level of competence that should be attained and the level that has been attained or projected to be attained by three stakeholder groups: recent accounting graduates, final year accounting students, and accounting academics. The last gap is the “expectations-performance gap,” which pertains to the mismatch between employers' impressions of accounting graduates' ability and competence levels (*ibid*).

In South Africa, there has been a much-needed call to enhance the pervasive skills of accounting graduates (Coetzee and Oberholzer, 2009; Stainbank, 2009). Despite such calls, graduates' technical discipline knowledge seems adequate, but a general lack in non-technical skills is still noted by employers of accounting graduates entering professional training contracts (Bunney et al., 2015; Sithole, 2015; Tempone et al., 2012). Accounting students, who are aspirant accountants and recent graduates entering the professional training contracts, are regularly described in academic literature as not sufficiently prepared for the professional workplace in terms of demonstrating the necessary pervasive skills for the field (Abayadeera and Watty, 2014; Awayiga et al., 2010; Cory and Pruske, 2012; Wells et al., 2009). To be precise, in the South African context, the new entrants have been said to be most deficient in

skills such as communication, more specifically, written communication, problem-solving, critical thinking, time management, and information technology skills (Van Romburgh and Van der Merwe, 2015). With specific attention to information technology skills, Wessels (2007) investigated the subject of ICT skills delivered to accounting students in South Africa and discovered that the insufficient utilisation of accounting software packages during their studies is the root of the skills gap between accounting graduates and the expected level demanded by the field. At the same time, on an international level, according to Elsaadani (2015), a committee of international accounting associations determined that ICT capabilities are one of the most critical skills that accounting graduates should master. With this in mind, Cory and Pruske (2012) point out that many accounting programmes have been revised to include training in software necessary for the workplace, including telecommunication software, but acknowledge that there is still room for improvement in some programmes as a considerable amount of time is still directed at the mastery of technical knowledge.

In South Africa, a pilot study was conducted to identify skills deficiencies in graduates entering their training contracts; respondents found that generally, graduates were not adequately equipped with the necessary professional skills (Van Romburgh and Van der Merwe, 2015); the skills in which graduates were most often deficient were communication (specifically writing skills), IT literacy, problem-solving, critical-thinking and time management. Surprisingly, their research also indicated a positive conclusion that trainee accountants could function in a team environment, which is critical given that traineeship work is typically conducted in teams.

Given the findings of various studies mentioned above, it seems employers are dissatisfied with the pervasive (or "employability, generic") skills that graduate students possess upon entering the workplace. According to these studies, accounting students are not adequately equipped with these skills during university education. In fact, it has been pointed out that accounting graduates are better prepared in terms of technical skills than with pervasive skills (Tempone et al., 2012).

#### 4.4 Hard vs. soft (pervasive) skills debate in accounting

According to Bunney et al. (2015), the pervasive skills discourse is critical for the new knowledge economy and crosses disciplinary and international divides.

It is generally understood that hard skills are technical discipline skills and knowledge acquired through training and education and may be perfected over time. Kermis and Kermis (2010: 48) define technical skills in accounting as “General accounting and financial reporting knowledge, and SEC reporting expertise for public companies. They also include internal audit and financial analysis skills, knowledge of software systems, and tax planning and code compliance competencies”. On the other hand, soft (pervasive skills) are applied or transferrable skills that affect how one interacts with others and are not easily taught and acquired.

In terms of the Human Capital Theory, skills are also classified as hard and soft (pervasive) skills. Hard skills refer to technical knowledge, and soft skills as skills necessary for success in the workplace (Spring, 2015). Ideally, each of these skills should complement the other. Like in most professions and disciplines, the role of both these skills is constantly under debate. In the past few years, there has been considerable debate about the skills and professional knowledge accounting graduates ought to possess to successfully pursue a career in accounting. These debates are significant for all stakeholders in accounting, such as the aspirant accountants themselves – accounting students, prospective employers, academics in the field, and others (Uyar and Gungormus, 2011). Three dominant views emerge as the debate on pervasive vs. hard skills (technical) continues in the accounting discipline. One view suggests that only hard skills are required for a successful career in accounting, the second one favours soft skills, and the last one promotes a combination of the two skills.

As much as it is generally understood that hard skills are required to carry out accounting tasks in the workplace, soft skills, on the other hand, allow one to interact positively in the workplace, enhancing the performance of work tasks. Such a view is in line with that of John (2009: 1), who states that “Soft skills are not a substitute for hard or technical skills, but they act as harmonizing skills that serve up to unlock the prospective for highly effective performance in people even with good hard skills. Cobo (2013) concurs, further suggesting that technical skills are an absolute necessity in a professional accounting environment. However, accountants who are in possession of both sets of skills are more valuable as a result of the high level of client/accountant interactions. Correspondingly, pervasive skills, over and above professional knowledge, are necessary for the accountant to reach his/her full potential in an accounting career (Brill et al., 2014) and to be competitive in the workplace (Uyar and Gungormus, 2011).

De Lange et al. (2006) further indicate that career success in accounting depends not just on technical competence but on 'personal characteristics.' Klaus (2010) supports the argument, adding that long-term success in the workplace is influenced by only 25% of technical knowledge, but 75% depends on people skills, a core component of pervasive skills. These skills are responsible for good customer service, which is much needed in all professions, accounting included (James and James, 2004). A similar study revealed that 85% of success in the workplace is attributable to softer skills and 15% to hard skills (Robles, 2012).

Other scholars believe that in as much as technical skills remain a necessary component in professional accounting, relying on just technical expertise alone may not be sufficient for professionals to survive in today's demanding accounting career (Helliard et al., 2009; Tempone and Martin, 2003). Similarly, in as much as technical accounting skills and knowledge remain compulsory for accounting graduates to possess, these are not enough to meet the demands of today's accounting workplace (Zraa et al., 2011). Coupled with that, Archer and Davison (2008) argue that skills such as communication skills weigh more than technical skills in the workplace. In support of this thinking, a study conducted on HR managers in 2007 also indicated that 67% of employers were happy to employ an applicant who has solid pervasive skills who may be lacking in technical skills because they believed that it is possible to teach them the technical skills than soft skills. Moreover, employers assume that students learn technical skills in accounting schools but must also possess pervasive skills to thrive in their careers (Hakim, 2016). It is also stated that when applicants apply for promotion, it is usually the applicant's attitude than technical skills that win them the promotion (Jackson, 2016; Vijayalakshmi, 2016).

Moreover, another study supporting the necessity of pervasive skills revealed that 70% of employers valued generic skills equally or sometimes even more than technical knowledge (Borzi and Mills, 2001), further pointing out that the accounting graduates' ability to progress in the profession may be negatively affected by the absence of these much-desired skills. However, these studies present findings contrary to those reported by Ameen et al. (2010), which were based on student perceptions of the importance of pervasive skills, which revealed that students ranked technical skills as most important for career success in accounting. Likewise, Tempone et al. (2012) propose that employers' technical skills remain the primary sought-after skills and seek those with good communication, self-management, and teamwork skills.

Kermis and Kermis (2010) support the role of both technical and pervasive skills playing an equal role in ensuring job success in accounting, suggesting that without pervasive skills, technical skills are not sufficient and that without these skills, careers end up dead-ended. It would seem evident that graduates with excellent academic records were highly sought by employers in years gone by. Nevertheless, even then, some believed that pervasive skills may affect the employability of graduates and that the shortage of these skills could compromise a promising career in the field for a graduate who may be technically proficient (Evenson, 1999). Today, however, a well-rounded graduate with discipline-specific and soft skills is preferred. Jacobs (2003), contrary to many studies, adds a social element to the debate by arguing that the focus by employers on pervasive skills is misguided and discriminatory and that it is aimed at discriminating against graduates who belong to the working class, who, as a result may be lacking in such skills. This view suggests that social class has an impact on pervasive skills development. In a like manner, some may assume that employers of accounting graduates may be prioritising skills and competencies not developed in some accounting programmes (Montano et al., 2001), putting pressure on trainee accountants entering the workplace.

In as much as the main focus of higher education is to provide training on technical topics, the job market, in order to meet the demands of a global landscape, expects more from graduates (Bancino and Zevalkink, 2007). Sithole (2015) and Azim et al. (2010) share similar views and claim that non-technical (or pervasive skills) enhance the application of technical accounting knowledge and positively influence performance in a work context. To echo the same sentiments, Klibi and Oussii (2013) maintain that in addition to technical skills, personal and interpersonal skills support accountants when applying their university-acquired technical knowledge in the workplace. Tempone and Martin (2003) also claimed, in a study conducted in an Australian context, that students faced challenges with applying theoretical knowledge obtained at university to practical workplace scenarios. Jackling et al. (2013) also argue for a combined skills set and state that for an accounting professional to successfully use technical knowledge gained through formal education, hard skills need to be accompanied by soft skills. However, the arguments presented by the authors above are contrary to those made by Scott and Wilson (2002), who suggest that work performance is not affected by the possession of pervasive skills.

In as much as most known pervasive skills are beneficial to accounting students, in varying degrees, with some research studies even investigating how these pervasive skills rank in terms of significance in the accounting profession (Awayiga et al., 2010; Barac, 2009), the need for all pervasive skills in accounting cannot be denied. For this study, however, the investigation was limited to five selected pervasive skills: communication skills, critical thinking, problem-solving, decision-making, and stress-management skills. The selection of the pervasive skills under study was informed by various studies suggesting their association with work readiness for accounting-related employment and academic performance in the accounting degree (a first step aspirant accountants take in moving towards their dream accounting career).

#### 4.5 Pervasive skills in specialist areas of accounting

According to Heang et al. (2019: 1064), accounting graduates are typically required to have technical proficiency in the following functional areas:

- (a) *Financial Accounting and Reporting*
- (b) *Management Accounting*
- (c) *Finance and Financial Management*
- (d) *Taxation*
- (e) *Audit and Assurance*
- (f) *Governance, Risk Management, and Internal Control*
- (g) *Business Law and Regulations*
- (h) *Business and organizational environment*
- (i) *Economics*
- (j) *Business strategy and management.*

However, there are considerable debates among researchers as to whether or not accounting professionals can conduct their professional duties effectively when having good technical skills and weak pervasive skills. Another debate is whether pervasive skills enhance the application of technical skills in a professional accounting environment or not. Various authors have argued that pervasive skills play an essential role in successfully applying accounting knowledge and skills in the workplace, mainly when an accountant is dealing with complex transactions as well as transactions that are non-routine in nature (Jackson and Chapman, 2012; Tingey-Holyoak and Burritt, 2012). Contrary to some opposing views, some suggest that pervasive skills are much needed in accounting as these enhance the application of technical

knowledge in situations that may be non-routine and complex in an accounting workplace (Bayerlein and Timpson, 2017). Levy et al. (2011) assert that newly graduated accountants who lack pervasive skills find it difficult to work with others, thus leading to poor work performance. On the contrary, other researchers do not seem to agree that pervasive skills have a place in the world of accounting, citing that technical skills alone suffice.

With attention to the fact that financial accounting, taxation, management, financial planning, academia, and auditing are just a few of the job paths that an accounting degree might lead to (Corkern et al., 2013), the discussion that follows focuses on the importance pervasive skills and attributes in the four career paths/specialist areas: financial accounting/reporting, auditing, taxation, and management accounting.

#### 4.5.1 Financial Accounting/Reporting

In prior research studies, specific accounting functions have not yet been adequately linked with pervasive skills. It is unclear if having the right pervasive skills may enhance the application of the regulatory model in accounting or accurate financial reporting. Sithole (2015) claims that non-technical or pervasive skills enhance technical accounting knowledge and positively influence performance in a work context but does not link such performance to specialisation areas. Scott and Wilson (2002) suggest that work performance is not affected by pervasive skills and present contradictory findings. It thus becomes clear that further investigations into this phenomenon are necessary.

#### 4.5.2 Auditing

The auditing profession, and the entire accounting profession, have gained a higher authority over financial reporting methods based on a systematic body of knowledge. In essence, the public gives the auditing profession a high social position, regard, and esteem when it comes to financial data in corporations (Adeyemi and Olamide, 2011). Due to the prestigious status enjoyed by auditing professionals, society expects them to uphold ethical values and possess the critical skills necessary to work in the best interest of those who rely on audited financial records for economic decision-making – public interest. This is even though this profession has been scrutinized in various ways (Adeyeye et al., 2010), particularly during periods of company collapse, with some even questioning whether auditing fits the standards of a profession as a

result of these incidents. Accordingly, many changes have been effected in the profession, including auditing standards.

As changes continue to occur in the business environment in which accounting and auditing professionals operate, which have become more complex, so have the skillset requirements. Such changes have called for a much-needed alignment between the capabilities of professionals (pervasive skills, attitudes, ethics, technical knowledge, and values) and the new business environment (Accountancy Age, 2016). Accounting and assurance professionals will need to gain broader skills linked to public practice, such as analytical thinking, interpersonal, negotiation, and communication skills and broader business knowledge, as a result of the changes in the landscape of the profession, which include the improvements and reliance in information technology (Atanasovski et al., 2018).

A study conducted by ICAS (a professional body that seeks to promote, inspire and enable professional excellence in chartered accountants working in the United Kingdom - UK) and FRC (Financial Reporting Council – UK) placed more emphasis on soft (pervasive) skills than technical competence, suggesting that pervasive skills are perceived as critical for a career in accounting, particularly in auditing (Crickett, 2016). Chartered Accountants Worldwide (2014) points out that it is critical for professionals in the accounting field to have strong communication skills to keep up with the changing times. The report suggests that having a good set of pervasive skills, particularly communication skills in your staff, will often set an audit firm apart, as audit clients assume technical skills to be the same across all firms. These pervasive skills are necessary for a field like auditing, which is mainly a communication and relationship business, with auditors constantly interacting with their clients and making ethical and moral decisions on a daily basis (Nadziakiewicz, 2016). Sue Almond from Grant Thornton (one of the leading audit firms) further attests to the need for pervasive skills, particularly communication skills in audit environments, by stating

“That broader skillset – being able to communicate with people at different levels, being able to see what’s being said and what’s not being, and being able to probe is vital. It is as much part of what makes a good auditor as technical knowledge” (Accountancy Age, 2016:4).

In particular, critical thinking, a cognitive skill that is not easily distinguishable, is related to judgment, scepticism (McPeck, 2016), self-reflection, and other skills that are much needed in auditing (Moore, 2013). Failure to demonstrate critical pervasive skills would hinder the

accountant's ability to interact with others in the workplace and to service clients (Tran, 2013). Additionally, for accounting firms to remain leaders and compete with other firms, they need accountants who are good communicators and would be able to understand clients' needs. It has been suggested that clients tend to be loyal to the accountant rather than the firm because they prefer an accountant with the knowledge and ability to understand their needs (Korschun et al., 2014).

Specific pervasive skills have been linked to the ability to conduct audits to the required standards – the International Standards on Auditing (ISAs). These standards provide guidelines for the audit process to be effectively conducted to formulate an opinion about an entity's financial position and performance (IAASB, 2015: paragraph 3). With that in mind, several research studies have been conducted on the identified pervasive skills. One of such relationships is the relationship between decision-making and professional judgment. Helliari et al. (2009) indicate that the audit process, by its very nature, involves teamwork, group decisions, and judgment. Critical thinking has also been linked with professional judgment in auditing. It has been pointed out that skepticism, judgment, originality, sensitivity, rationality, and self-reflection are all components of critical thinking (Moore, 2013). More specifically, critical thinking impacts the formation and strength of auditors' sceptical dispositions, which is an essential component of auditing (Nolder and Kadous, 2018). However, how specific pervasive skills may advance/enhance the demonstration and application of professional skepticism has not been adequately investigated.

In internal auditing, a subset of auditing, pervasive skills have gained much focus recently, with various stakeholders agreeing that technical skills alone do not suffice in today's internal audit. Nadziakiewicz (2016:152) argues that the following skills are necessary to conduct work of an acceptable standard; such skills include:

- Relationship strategies
- Emotional intelligence
- Negotiation skills
- Ability to solve conflict as well as,
- Developing personal self-awareness and value-based leadership

### 4.5.3 Taxation

Technical skills refer to an accountant's ability to conclude an accounting matter for a client on time, without delay or further negotiation, and handle the complexity of accounting treatment well. Having the transactions posted in the correct accounting records, such as the ledger, would benefit the company because it would save costs and thus increase profits. However, even after an account has been completed, clients occasionally have unresolved concerns, particularly when it comes to tax matters. As a result, the accountant must engage with the client and explain the amount while maintaining the company's profit margin. The accountant uses his or her all-encompassing skills, such as problem-solving and communication, to address such matters (Quek, 2005).

Also, problem-solving skills are critical in terms of client satisfaction and compliance with accounting regulations and standards. In general, clients appreciate lower tax assessments as paying too much tax negatively affects profits, and on the other hand, profitability is crucial to attracting potential investors. Given that, if the accountant prefers to follow the client's wishes for higher profits, he or she may violate accounting standards, resulting in a negative influence on the accountant's reputation; thus, in order to satisfy each side, the accountant must have strong problem-solving skills (Jafaar, 2018). Of course, whether newly qualified or seasoned professionals, chartered accountants are responsible for upholding ethical standards and conducting themselves professionally. Integrity is critical to the profession's dedication to excellence (SAICA, 2014b). Samuel and Simionescu (2012) emphasise the importance of pervasive skills to accounting professionals, stating that all behaviour displayed by accounting professionals must protect the reputation and integrity of the profession, thus upholding their responsibility to act in the public interest. The responsibility to meet public interest demands requires a high level of conduct and performance by accounting professionals.

The accounting profession (including its tax component) has expanded its role from being a custodian of corporate information to interpretation and distribution of information due to the developments that have occurred in accounting (Joubert et al., 2009). With specific reference to those accountants specializing in taxation, a subset of accounting, the role of a modern tax professional has also evolved in line with the changes introduced because of the 2008 financial crisis that subsequently led to pressure on tax professionals, executives, in particular, to increase tax compliance. Nibbe (2016) is of the opinion that for changes to be put in place effectively, tax practitioners must be team players and demonstrate ingenuity on a large scale.

Like those in the other specialist areas in accounting, tax practitioners are expected to be good communicators. In addition to being detail-oriented, tax practitioners must be inquisitive and thoughtful to deal with clients with a more personal approach.

#### 4.5.4 Management Accounting

The changes that are taking place in the global business arena have also affected the management accounting function and the duties performed by management accountants. According to Goretzki et al. (2013), it is apparent that the profession is shifting away from traditional management accounting tasks and moving towards newer, more value-added ones like long-term strategy planning, process optimization, and customer and product profitability. Indeed, management accountants play a critical role in organisations. Their roles include providing financial information used as input for critical decision-making in businesses. Such professionals advise managers on the financial implications of business decisions and may be involved in formulating business strategies. According to Coad and Herbert (2009), the changing roles of management accountants are due to the close working relationships between management accountants and managers, with management accountants serving as decision-making facilitators (Johnston et al., 2002) as a result of their involvement in strategy development (Ma and Tayles, 2009).

Of course, technical knowledge remains necessary in this specialization area, but, like the rest of the specialization areas, professionals working in this area interact with colleagues at various levels (junior to senior) within the organisation. This suggests that non-technical skills may benefit professionals working under this specialist accounting function. In fact, employers in both the United Kingdom and Spain believe that the development of non-technical (pervasive) skills by accounting practitioners is critical to the management accounting practice (Hassall et al., 2005).

#### 4.6 Pervasive skills for entry-level employment in accounting

Some scholars have understood pervasive skills to assist accounting students in the job-seeking process (Gibb, 2014, Levant et al., 2016) by ensuring that they attract employment that is in line with their attitudes, motivation, and education (Hande et al., 2015) and are essential in enhancing personal development (Gibb, 2014) and developing personal mastery and further learning (Sin et al., 2016). These skills may also be perceived as the emotional intelligence

quotient of an individual (Choudary, 2014). Other scholars hold that at most, employers presume the technical knowledge and skills of accounting graduates, but pervasive skills serve as distinguishing qualities when evaluating the graduates in the job-seeking process (Jackling and De Lange, 2009). Wilhelm et al. (2002) contend that pervasive skills are essential in the workplace for one to exhibit finesse as a member of a team and adapt to the cultural norms in the workplace. In fact, the graduates themselves believe that pervasive skills helped them secure a job and in job performance. These skills have also been proven to positively influence professional performance (Ibrahim et al., 2017) and distinguish between a candidate that meets the requirements for the job and an ideal candidate (Vasanthakumari, 2019).

With these reasons in mind, it would seem that technical ability and knowledge alone are inadequate and cannot seal the gap that results from the absence of these pervasive skills and attributes (Uyar and Gungormus, 2011). Expressively practical soft skills make students more 'work ready' before entering the professional workspace (Khalid et al., 2014). Of course, in years gone by, graduates with excellent academic records were highly sought by employers, but today, it seems that a well-rounded graduate, possessing both discipline-specific skills and pervasive skills, is preferred. In fact, the industry demand for graduates with the necessary employability skills to apply discipline knowledge upon joining the accounting profession continues to rise worldwide (Jackson, 2014a).

Indeed, several studies have pointed to a connection between pervasive skills and attributes for employment prospects and career success. This may explain why another debate that arises from time to time concerns the distinction between skills essential for an accounting career in general and those pertinent to individuals merely commencing in the profession. Some contend that not all pervasive skills are required for entry-level accounting employment in the field and that some skills may be appropriate in supervisory or management positions. If such a view is held, it would mean that academics in the academic programme need not have the responsibility to instil the skills that are not relevant for entry-level employment, as focusing on all skills is more than likely putting too much pressure on academics.

Other scholars refute the need for accounting graduates to focus on acquiring pervasive skills altogether. For instance, Marques (2013) argues that pervasive skills are only critically important to those aiming for leadership positions, suggesting that entry-level accountants need not prioritize acquiring and demonstrating these skills just yet. Presenting a similar view,

Crebert (2002) and Leggett\* et al. (2004) also suggest that pervasive skills are not as vital for graduates entering the workforce. If such arguments stand, it would mean that the skills necessary for more senior accounting positions to advance into higher-level accounting positions could be prioritised later in the workplace. With this in mind, Tempone and Martin (2003) propose that there is a lack of clarity as to which of the skills are essential for a newly graduating accounting professional.

In fact, according to research, accounting students with a mix of pervasive and technical skills are better prepared to deal with the pressures of the business environment than students who rely solely on technical accounting skills. Such a view clearly indicates that for students to transition to the professional environment and perform as per employer expectations at entry-level, they ought to combine both sets of skills. Indeed, increasing the likelihood of a match between a job applicant and a job vacancy may be facilitated by achieving consistency in the perceived value of relevant skills and attributes; a perfect match between person and work would help reduce entry-level staff turnover (McQuaid, 2006).

In light of the current debates above, it is conceivable that an inadequate understanding of the skills and competencies expected of entry-level accounting graduates may be a disadvantage for both the employer and the graduate in the job-seeking process. Thus, students nearing job-seeking who do not have a realistic expectation of their job skills and competence might find it challenging to secure their desired jobs.

Owing to the existing literature, it would seem evident that all known pervasive skills do not carry the same value in terms of their importance in the accounting profession according to the different stakeholders. As similarities may be observed in the pervasive skills rankings by accounting students, graduates, academics, professional bodies, and employers in international studies, differences are apparent. Also, considering that it is common for employees to experience a variety of settings and contexts, the perceived relevance of skills differs by country (Hakim, 2016).

#### 4.7 The responsibility for pervasive skills development in aspirant accountants

As much as all accounting stakeholders agree that accounting graduates with the requisite pervasive skills are necessary for the profession, they have varying views about the responsibility for instilling pervasive skills.

In South Africa, the responsibility to ensure that accounting graduates achieve these skills before they enter the profession is a shared responsibility between the academic programme (Board) and the training programme (SAICA, 2014a; SAICA, 2015b). The accrediting body, SAICA, oversees both programmes, the academic and the training programme. Universities offering SAICA accredited accounting programmes are expected to explain how they have addressed the development of pervasive skills by accounting students in the accounting curriculum (Barac and Du Plessis, 2014; Gammie et al., 2010). More specifically, at SAICA-accredited universities, the academic programme through accounting academics should create and implement competency-based teaching techniques that successfully integrate pervasive skill development into undergraduate accounting curricula as laid out in the SAICA Competency Framework (Viviers, 2016b). The SAICA Competency Framework does not specify the level of proficiency that must be reached in the development of pervasive skills and qualities for academic programmes (SAICA, 2014a). However, the Training and Professional Programme is informed of these skill levels. This is because SAICA recognizes that determining objective measures of levels of skills may prove challenging and complex.

Clearly, this discussion has shown that the role of the academic programme in developing pervasive skills in accounting students is crucial. However, the degree to which the academic programme should be committed to fostering pervasive skills and attributes in future CAs appears to be a point of contention in various research (Hesketh, 2011). Moreover, it would seem that the role of the academic programme in fostering pervasive skills in aspirant accountants may be hindered/limited or even enabled by the presence of various factors. These factors will be discussed in the next chapter.

The literature review for the study's second research objective was presented in the section above. This research objective addressed research question two, which intended to determine the pervasive skills accounting students and academics believe are essential for entry-level

employment in the field. Results in relation to this study question are presented in the following section. Following an interpretation, discussion of these results, and some closing remarks.

#### 4.8 Presentation and interpretation of findings

This section will focus on presenting, interpreting, and discussing the results in relation to the second research question. After an analytical or experimental investigation, the task of drawing inferences from the collected information is known as interpretation (Miller and Brewer, 2003). To aid in the presentation and interpretation of data, the results are presented using descriptive statistics in the form of graphs, frequency tables, figures, and inferential statistics.

##### **Important note:**

The number of pervasive skills under inquiry was extended from five to fifteen for the sole purpose of this research objective. Accounting students and academics were asked to 1) rate the fifteen pervasive skills on a 3-point Likert scale from high, moderate, and low in terms of their importance for entry-level employment in the accounting profession,

The ten skills added to the five study skills were: communication skills (which were split into oral and written for this section), self-management, time management, self-discipline, independence, computer application skills, teamwork, lifelong learning, responsibility, and numeracy skills. The additional skills align with the SAICA Competency Framework's pervasive skills and attributes and were theoretically found to be significant to the accounting profession. The purpose of including the ten other pervasive skills and qualities was to see how important the study variables (communication, critical thinking, decision-making, problem-solving, and stress management skills) were when mixed with other skills. Furthermore, the goal was not to limit the number of pervasive skills participants may rate. This was crucial since research participants could have considered skills other than the five pervasive skills under investigation vital for entry-level accounting employment.

However, rating the five key study pervasive skills received considerable attention during the data analysis, interpretation, and discussion.

#### 4.8.1 Descriptive data

Descriptive data is used to report a sample's distributions across various variables. The goal is to generate a range of characteristics for such distributions using frequencies, central tendency, and dispersion measures (De Vos et al., 2011).

##### 4.9.1.1 Demographic summary of student research participants

The following tables, Tables 4.1, 4.2, 4.3, and 4.4, show the demographic profile of student respondents.

**Table 4.1. Demographic profile of student respondents: Gender**

Demographic variable	Frequency	Percent
Male	107	39.1%
Female	167	60.9%

The gender distribution of the student respondents who completed the questionnaire is shown in Table 4.1. above. 167 (60.9%) of the 274 students that responded to this question were female, while 107 (39.1%) were male. This could demonstrate that female students dominate the UKZN accounting degree programme.

**Table 4.2. Demographic profile of student respondents: Race**

RACE	Black	138	50.5%
	Indian	105	38.5%
	Coloured	15	5.5%
	White	3	1.1%
	Other	12	4.4%

A total of 273 respondents answered this question. One respondent did not provide information about his/her race. The demographic information on race shows that Black participants make

up half of the study sample (50.5%), followed by Indians (38.5%). The other demographic groups had minimal participation levels in the study.

**Table 4.3. Demographic profile of student respondents:**

Age		
AGE	Minimum	20
	Maximum	24
	Mean	21.44
	Std. Deviation	1.003

The age distribution of the student participants is shown in Table 4.3. Overall, the respondents' ages ranged from 20 to 24 years, with an average age of 21.44. This age distribution reveals that most accounting students at UKZN are under the age of 22 and so belong to the Z generation. The age distribution in this table shows that there was no bias in the distribution of questionnaires to respondents. This is a good indicator of the researcher's objectivity when it comes to the distribution of the questionnaires.

**Table 4.4. Demographic profile of student respondents: Years of employment**

YEARS OF EMPLOYMENT	Minimum	0.00
	Maximum	6.00
	Mean	0.38
	Std. Deviation	0.85

Table 4.4. shows that the survey student respondents mainly had minimal working experience (mean length of employment=0.38 years).

4.8.1.2 High school background of student research participants

The following tables, Table 4.5., 4.6. and 4.7. show the *high school backgrounds of students*

**Table 4.5. High school background of student: English subject**

School background variable		Frequency	Percent
English type	English Home Language	195	71.2%
	English First Additional language	79	28.8%

From the descriptive results shown in Table 4.5 above, one realises that the majority of students who participated in this study had English as a home language (71.2%). Only 28.8% of participants had English as a first additional language at the high school level.

**Table 4.6. High school background of student: Type of school attended**

Type of school attended	Former Model C Multi-racial	168	61.8%
	Independent (Private)	23	8.5%
	Rural or Township Public School	81	29.8%

Table 4.6 above shows the survey responses of 272 students. Two respondents did not provide an answer to this question. From the table (Table 4.6), it is evident that the majority of the student participants were from Former Model C Multi-racial schools background (61.8%), followed by the next category that attended rural or township public schools (29.8%). Only a small minority had independent or private schooling background (8.5%). The inference that can be drawn from this is that parents opt to send their children to former model-c schools in the hope of a better education. Some parents, however, cannot afford to send their children to multi-racial schools due to financial resources or logistical issues – e.g., when the schools are too far from their places of residence. Parents who can afford independent/private schooling for their children send their children to this category of schooling that is generally the most expensive of the three categories.

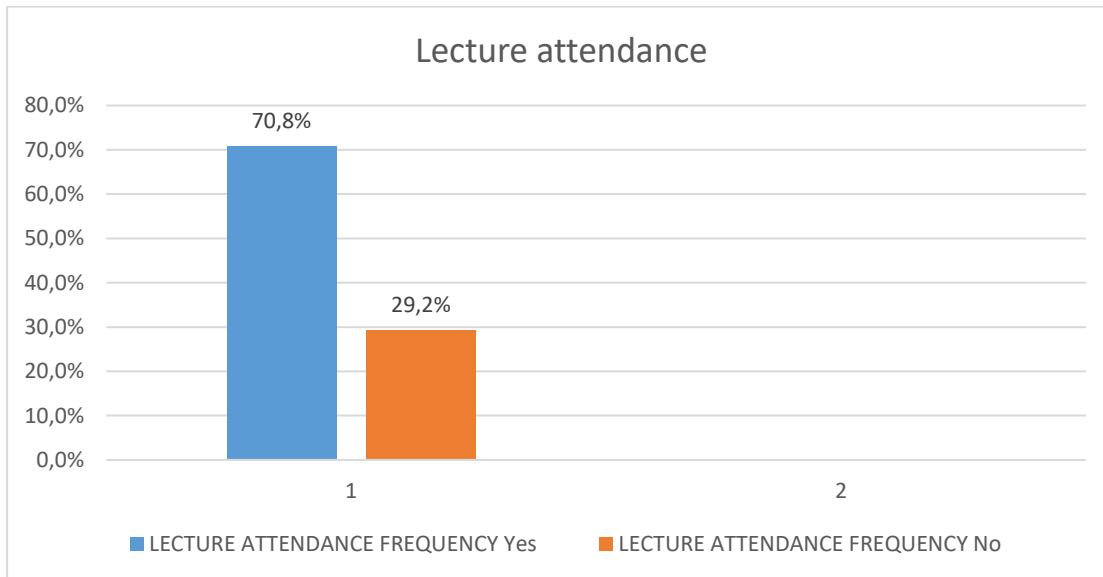
**Table 4.7. High school background of student: Academic Performance: School**

<b>Academic Performance</b>	Minimum	Maximum	Mean	Std. Deviation
Matric pass Accounting	55.00	98.00	79.09	8.71
Matric pass Maths	60.00	95.00	69.99	7.84
Matric pass English	54.00	92.00	72.08	8.40

The student respondents also had high Matric marks in Accounting (mean=79.09), Mathematics (mean=69.99), and English (mean=72.08). From this data, it can be gathered that many accounting students enter the higher education level with good marks in terms of Accounting, Mathematics, and English. This solid background should support their current academic performance.

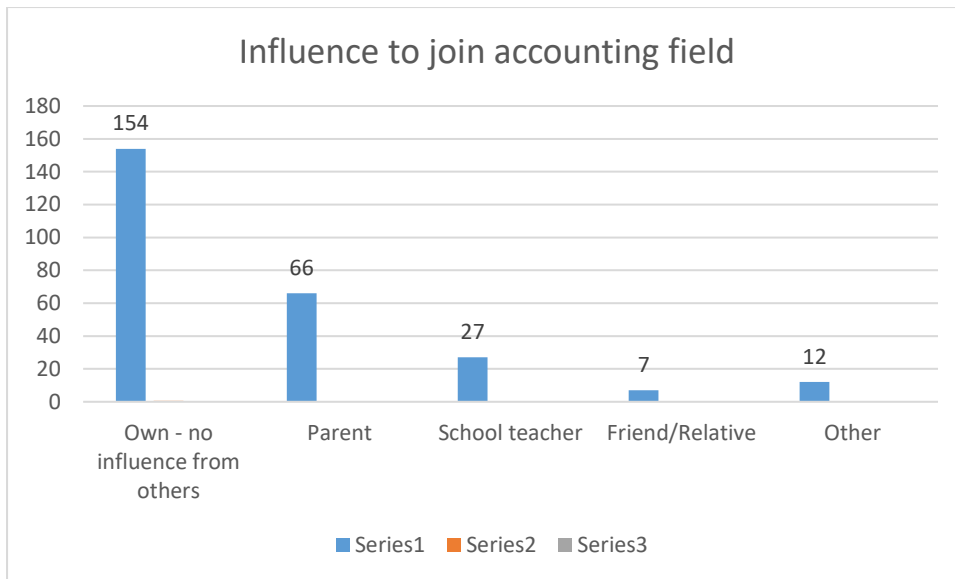
*4.8.1.3 University background of student research participants*

Figure 4.1. and 4.2. show the university background of student survey respondents.



**Figure 4.1: Lecture attendance**

Figure 4.1 above shows that most of the student survey respondents could attend all lectures in a week (70.8%) whilst 29.2% of students indicated that they could not attend all prescribed lectures in a week.



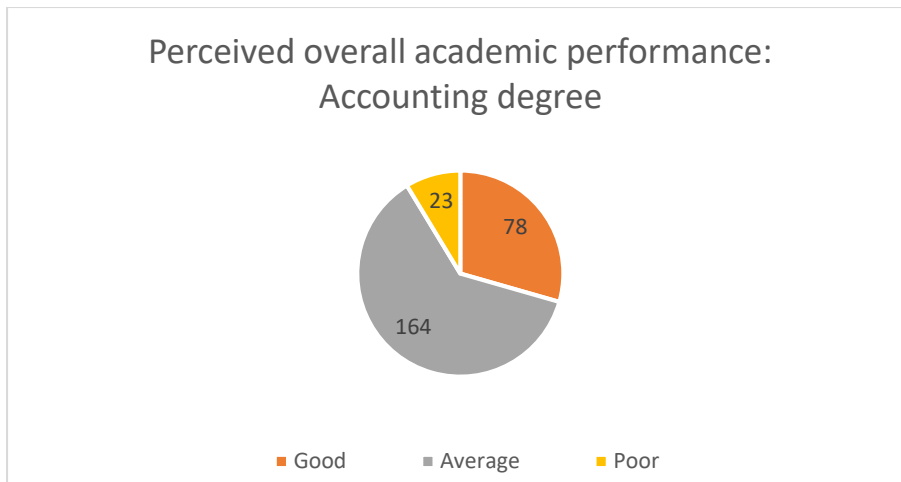
**Figure 4.2: Influence to join the accounting field**

Figure 4.2 shows that 266 respondents responded to this question, resulting in 8 missing responses. From the responses received, it is shown that most students, 154 (57.9%), entered the accounting field of study on their own accord, with 66 (24.8%) of them being influenced by parents and 27 of them (10.2%) influenced by school teachers.

**Table 4.8: University Academic Performance**

University Performance	Minimum	Maximum	Mean	Std. Deviation
Financial ACC 2A mark	50	87	62.27	9.162
Financial ACC 2B mark	50	85	61.04	8.700
Financial ACC 3A mark	43	80	60.26	8.395

Table 4.8 above shows the results that illustrate that the students had an average mark of just above 60% in the three financial accounting modules, ACC 2A, ACC 2B, and ACC 3A.



**Figure 4.3: Perceived overall academic performance in the accounting degree**

The figure above (Figure 4.3) depicts the students' perception of their overall academic performance in the professional accounting degree. Of the 274 students who participated in the survey, 265 responded to this question, resulting in 9 missing responses. From the responses received, most students believed they had an average performance (61.9%), while only 29.4% believed they had a good performance, with 8.7% believing that they were performing poorly.

**Table 4.9: Self-study hours**

University Performance	Minimum	Maximum	Mean	Std. Deviation
Self-study hours	1	84	19.92	15.585

The results also show that, on average, students spent 19.92 hours studying every week, with some studying for as long as 84 hours.

#### 4.8.2 Inferential statistics

This section seeks to present inferential statistics concerning the second research objective.

*To identify the selected pervasive skills that accounting students and academics perceive as important for entry-level employment in the accounting profession.*

This question sought to investigate the perceptions of accounting academics and accounting students about the skills necessary for entry-level professional employment in the field. To

collect the respondents' views, a survey was conducted using questionnaires. Using a 3-point Likert-scale questionnaire, survey respondents were asked to rate the selected pervasive skills in terms of their importance for entry-level employment in the accounting profession. The participants had to rate the pervasive skills and attributes high (3), moderate (2) and 1 (Low). Therefore, the pervasive skills with the high mean ranks were those who were perceived as most important and those with low mean ranks were perceived to be of low importance.

**Table 4.10 Pervasive skills important for entry-level professional accounting employment (training articles)**

Pervasive skills important for entry-level professional accounting employment (training articles)		N	Mean	Mann-Whitney Test	
				U	p-value
ELEA1. Self Management	Student Academic	264 12	2.33 2.50	1401.000	0.456
ELEA2. Time management	Student Academic	264 12	2.79 2.92	1396.500	0.314
ELEA3. Self-discipline	Student Academic	261 12	2.49 2.42	1389.500	0.452
ELEA4. Independence	Student Academic	262 12	2.38 2.00	1126.500	0.063
ELEA5. Oral comm	Student Academic	264 12	2.73 2.92	1318.000	0.186
ELEA6. Written comm	Student Academic	262 12	2.70 2.75	1528.500	0.834
ELEA7. Critical thinking	Student Academic	261 12	2.77 3.00	1230.000	0.073
ELEA8. Decision making	Student Academic	264 12	2.64 2.58	1460.000	0.576
ELEA9. Computer appl. skills	Student Academic	263 12	2.34 2.50	1374.000	0.392
ELEA10. Teamwork	Student Academic	262 12	2.66 3.00	1086.000	<b>0.023</b>
ELEA11. Stress man	Student Academic	262 12	2.65 2.75	1447.500	0.568
ELEA12. Problem-solving	Student Academic	262 12	2.76 2.83	1475.000	0.617
ELEA13. Lifelong learning	Student Academic	260 12	2.24 1.33	632.000	<b>0.000</b>
ELEA14. Responsibility	Student Academic	253 12	2.53 2.83	1096.000	0.060
ELEA15. Numeracy skills	Student Academic	262 12	2.52 2.58	1482.500	0.702

The distribution of the mean scores and the p-values based on the Mann-Whitney U Tests are presented in Table 4.10 above. Both students and academics were asked to respond on a three-point Likert scale, with three being the maximum and one being the minimum available score. The quantitative analysis of data from the two groups of participants revealed that there were commonalities and differences between the rating of academic participants and those of accounting students who aspire to be chartered accountants in this section.

The Mann-Whitney U-Test shows which items of pervasive skills have mean ranks that significantly differ between accounting students and academics. From the results, it is evident that there is a significant difference between the perceptions of accounting students and academics as far as the importance of teamwork - ELEA10 (p-value= 0.023) and lifelong learning - ELEA13 (p-value= 0.000) for entry-level employment in the accounting profession. Students with a mean rank of 2.66 rank teamwork significantly lower than academics (mean= 3.00). Concerning the importance of lifelong learning for entry-level employment in the accounting profession, accounting students rated it higher (mean rank: 2.24) than academics (mean rank: 1.33).

Apart from lifelong learning, which scored low for both groups of respondents (student mean: 2.24 and academic mean: 1.33), the results also showed that the mean ranks of the fifteen pervasive skills ranged from 2.24 to 2.79 for accounting students and up to 3.00 for academics, indicating that both academics and students perceived the pervasive skills as important overall. However, a much closer look at the findings revealed that some of the provided pervasive skills ratings were not consistent between the two groups of participants.

In terms of the first five ratings by academics, critical thinking and teamwork skills were rated the highest by the academics, with a mean score of 3.00 each. The second highest rating was shared by oral communication and time management at 2.92. Ranking third was problem-solving skills and responsibility, with a mean score of 2.83. Rated fourth were written communication and stress-management skills with a mean score of 2.75. Decision-making and numeracy skills took the last spot in the top five highest-rated pervasive skills, with a mean score of 2.58.

The rating results by academics revealed that **all** the pervasive skills selected for this study (communication skills, critical thinking, decision-making, problem-solving, and stress-management) included in the list of fifteen pervasive skills and attributes provided to study participants to rate were ranked in the top five.

Focusing on the selected pervasive skills for this study, the following ratings by accounting academics were revealed:

Critical-thinking	3.00
Oral communication	2.92
Problem-solving	2.83
Written communication and Stress-management	2.75
Decision-making	2.58

Regarding the first five ratings by accounting students, time management was rated the highest, with a mean score of 2.79. Table 4.10 reveals a widespread belief among students that time management skills are necessary for entry-level accounting employment. The second highest rating was critical thinking with a mean score of 2.77; problem-solving was rated third by accounting students with a mean score of 2.76. Oral communication and teamwork came forth and fifth with mean scores of 2.73 and 2.66, respectively.

Focusing on the selected pervasive skills for this study, the following rating by accounting students, as indicated by the mean scores, were revealed:

Critical-thinking	2.77	
Problem-solving	2.76	
Oral communication	2.73	Written communication 2.70
Stress-management	2.65	
Decision-making	2.64	

The results of the rating by accounting students revealed that **not all** the pervasive skills and attributes that were selected for this study (communication skills, critical thinking, decision-making, problem-solving, and stress-management) which were included in the list of fifteen pervasive skills and attributes provided to study participants to rate were rated in the top five. The top five pervasive skills as rated by accounting students did not feature decision-making,

written communication, and stress-management skills. Instead, skills such as time management and teamwork were highly rated.

These results indicated above show that both accounting students and academics believe that of the selected pervasive skills, critical thinking is the most important skill for entry-level employment in the accounting field.

### **Discussion of results: Rating of selected pervasive skills**

The analysis took into account all of the survey respondents' responses, including accounting academics and students. As a result, several patterns emerged—both in terms of similarities and distinctions between the two groups. It was found in this study, which focused on the perspectives of these stakeholders, academics, and accounting students who are almost through with their degrees, that they regard all of the selected pervasive skills as crucial for obtaining entry-level work in the field.

Overall, all the pervasive skills provided in the survey were deemed significant by all respondents to varying degrees. Further, the results revealed commonalities and differences in the ratings of the fifteen skills provided by both cohorts, accounting students and academics. The following were commonalities:

- Critical-thinking skills were rated highly by both groups of participants.
- Teamwork skills featured in the top five rankings of both sets of participants.
- Oral communication was ranked highly by both groups of participants.
- Problem-solving skills were ranked third by both groups of participants.

The following were differences in the top five ratings by accounting academics and students:

- Accounting students rated time management skills very highly, ranking it first.
- Accounting academics rated decision-making skills highly, ranking it fifth, but accounting students did not rank this skill highly for entry-level employment.
- Accounting academics rated stress-management skills highly – ranking it fourth. However, accounting students did not rank this skill in their top five skills.

The finding that the majority of the provided pervasive skills were considered necessary overall by both groups of respondents corroborates the findings of several research studies that suggested that pervasive skills, in general, are important for accounting graduates (Low, 2007;

Matteson et al., 2016; Moore and Morton, 2017; Palmer et al., 2004; Wye and Lim, 2009). On the other hand, this finding which shows that pervasive skills are important for entry-level employment, contradicts previous findings, such as those of Marques (2013), who claimed that pervasive skills are only critical for those aspiring to leadership positions, implying that entry-level accountants do not need to prioritise the acquisition and demonstration of these skills just yet. Crebert (2002) and Leggett\* et al. (2004) concurred, claiming that pervasive skills are not as crucial for graduates entering the workforce.

The findings revealed that the skills perceived to be the most important by academics were critical thinking and teamwork (mean =3.00 for both). The rating of these skills was strikingly similar to accounting students' rating of the same skills. Accounting students rated time management (mean=2.79) first, followed closely by critical thinking skills (mean=2.77). This was a crucial finding. These results corroborate the results of similar studies. For instance, critical thinking, problem-solving, and time management skills were ranked highly among other skills in a study conducted in an Australian context (Carr et al., 2006). The findings of this study also bear a number of similarities with those of a pivotal study by Albrecht and Sack (2000), which revealed that critical thinking skills were ranked second among a list of twenty-two pervasive skills by a total of 4000 survey participants who included accounting academics and practitioners. Critical thinking skills have long been recognised as necessary in accounting; for example, these skills have been viewed as an intellectual capacity that enhances an accountant's ability to analyse and solve non-deterministic issues, detect errors and inconsistencies, and make informed decisions (Jenkins, 1998). Even employers value critical thinking skills since they are thought to make accounting graduates more competitive (Aman and Sitotaw, 2014). The high importance placed on critical thinking by the survey respondents also backs up research that suggests that graduate accountants may review, theorise, and consider alternatives to today's business difficulties by employing critical thinking abilities; more importantly, these skills should aid them in developing creative solutions to client issues (Gardner, 2017).

The ranking of communication skills in the top five skills by both groups of participants is in line with what employers of accounting graduates believe are critical skills in the accounting profession. These results also confirm that the nature of accounting work has changed from that of the past, and the need for communication skills has increased because accounting work performed by trainee accountants is mostly undertaken in teams. Emphasizing this is Waldeck

et al. (2012), who state that every employee needs to be an effective communicator for them to be able to contribute in a way that increases the team's knowledge capital. The ranking of written communication as one of the top pervasive skills for entry-level employment in the accounting field by accounting academics is consistent with the findings revealed by Jones (2011) and a much older study by Christensen and Rees (2002). They revealed that the ability to write clearly and concisely is key to entry-level accountants. These skills are also rated highly by employers of accounting graduates.

A study conducted by Montano et al. (2001) revealed that graduates' communication skills are the most sought-after skills. Lim et al. (2016) also reported similar findings. They identified a set of soft skills that employers highly rate: (a) analytical skills, (b) robust decision-making process, (c) oral and written communication skills, (d) problem-solving, (e) teamwork skills, (f) ability to gather information, (g) and ability to work under pressure and among all of these skills, written and oral communications skills were the most important skills that employers identified as necessary for any new employee to be successful. Both groups of respondents' high rank of oral communication skills was remarkable. This finding goes to show that even the students realise the significance of having the ability to communicate with others in a professional setting. This was especially important given that, according to several studies, many accounting students are deemed to have a far greater level of communication apprehension (Arquero et al., 2007; Gardner et al., 2005; Simons and Riley, 2014). However, this study's findings about communication skills refute previous results reported by Ameen et al. (2010), who, despite the significance of communication skills acknowledged by many stakeholders, reported that accounting students do not put a high priority on these skills. However, while several studies (Jones, 2011; Sithole, 2015; Montano et al., 2001) show that communication skills are the most sought by employers of accounting graduates, other pervasive skills also surface as important.

In this study, the ranking of stress management skills as one of the top skills for entry-level employment in accounting is not surprising, given the high level of job pressure in the accounting industry (Chang et al., 2017; López and Peters, 2011; Molina-Sánchez et al., 2019). Montano et al. (2001) also found that stress management is the second most desired employee skill, showing that in such pressure-driven environments, having the proper stress management skills is deemed necessary by employers. This finding is also in line with the results reported

by Sithole (2015), who found that pressure and time management skills are fourth in importance, behind communication, group work, and problem-solving skills. Indeed, having the necessary stress management skills is necessary to maintain the desired level of productivity and efficiency in the workplace. Indeed, given the demanding nature of the professional workplace, it has been proposed that graduates ought to develop specific capacities beyond their qualifications in order to deal with the pressure in the workplace (Masole and van Dyk, 2016).

Problem-solving skills were rated highly by both groups of respondents, suggesting that these skills are crucial to those starting out in the profession. Employers also want graduates to focus on problem-solving skills (Politsinsky et al., 2015). Again, this finding is in line with employers' views, as Kavanagh and Drennan (2008) revealed that problem-solving skills, business awareness, and technical accounting skills were among employers' three most valued skills.

In this study, other skills such as self-management were also ranked moderately by accounting students and academics. Self-management, seen as the ability to plan and execute tasks or goals within a set time limit and the ability to plan and execute job-related tasks as explained to the survey respondents, was perceived as significant. Self-management was also identified as one of the most critical skills in a study conducted by Fouche and Kgapola (2016), but in that particular study, these skills were perceived as necessary for advancing into management or supervisory positions in accounting as opposed to this study where these skills were believed to be essential for entry-level employment in the field.

One unexpected finding was the low rating of lifelong learning skills by both groups of respondents. There are several possible explanations for this result. On the student side, it is possible that the students did not fully understand the meaning of lifelong learning and thus rated it low. In terms of academics, respondents may likely have erroneously rated this skill as low. Notwithstanding that, it is also possible that both groups of respondents believe these skills are irrelevant for a graduate just entering the profession.

Overall, it is critical to align the skills that all stakeholders in accounting (especially employers) consider vital for entry-level employment in the profession to close the expectation gap and reduce the likelihood of graduates having difficulty in their entry-level roles. This can happen when businesses place a high value on a set of talents that accounting graduates may consider unimportant (Hakim, 2016).

#### 4.9 Chapter summary

This chapter explored the literature pertinent to the second research question. The issues explored include the roles and responsibilities of trainee accountants and the pervasive skills and attributes necessary for them to gain entry into the professional field. The next chapter will focus on the factors that enable or hinder the development of pervasive skills and attributes by accounting students before the commencement of the training programme

## CHAPTER FIVE

### THE DEVELOPMENT OF PERVASIVE SKILLS BY ACCOUNTING STUDENTS

#### 5.1 Introduction

The preceding chapter addressed the second research question to determine the pervasive skills that major accounting stakeholders rated highly for entry-level professional employment in the field. The results revealed which of the pervasive skills are perceived as essential entry-level employment in the accounting profession as perceived by the survey respondents in this study.

This chapter focuses on the third research question, which is concerned with factors that influence the development of pervasive skills of accounting students aspiring to be chartered accountants. Bronfenbrenner's Bioecological Theory was adopted to frame the understanding and interpretation of data relating to this research question. A discussion on the Bioecological Theory will be provided first, followed by the literature relevant to this question, and then the presentation and discussion of findings.

#### 5.2 Theoretical framework

##### 5.2.1 Development science

Growth and change, defined as "orderly, systematic, and lawful changes," are the hallmarks of development (Endler et al., 1976:1). The goal of developmental science is to define, describe, and optimize intra-individual change and inter-individual disparities in intra-individual change all over the lifespan of an individual (Baltes et al., 1980). Development science uses relational developmental systems theoretical models to accentuate that the basic process of human development involves mutually influential relationships between the developing individual and multiple levels (Overton, 2010). Those who agree with this way of thinking assert that individuals in development live and think within a society, and prevailing practices impact their actions and thinking in part; hence they actively generate multiple meanings in different social circumstances to make meaning of their social environment (Thorpe, 2009). It is argued that individuals have varied developmental trajectories in terms of maintaining, developing, and deteriorating significant characteristics, behaviours, and even skills over time. Following this

thinking, it would appear that adults, as a group, should become more varied with time since each human is a universe of one. Also, it is said that different responsibilities, experiences, educational backgrounds, familial and environmental resources, and motivators contribute to adult distinctiveness.

Human development is defined by Bronfenbrenner (1979:27)

*“As the process through which the growing person gains a more extended differentiated, and valid conception of the ecological environment, and becomes motivated and able to engage in activities that reveal the properties of, sustain, or restructure that environment at levels of similar or greater complexity in form and content.”*

Indeed, today's human development spotlight is mainly on the more prominent foreground, the contexts that shape development. The essential principle of a contextualist viewpoint is that human development is inextricably linked to both the immediate situational setting and the larger cultural environment in which it takes place (Rogoff and Angelillo, 2002). Context or environmental influence gained traction in the eighteenth century based on three main propositions: development does not occur in isolation; development occurs in a continuous, reciprocal process of interaction with the environment; and functioning is derived by the dynamic interplay between biological, environmental factors and psychological, factors (Magnusson, 1995).

Also, it has become evident through research studies in development science that the supposedly objective, external environment also exists inside and shapes one's focus, in this instance, the young adults' and their perspective of the past, present, and future. Contexts, more specifically young adult contexts, are the highly influential personal environments (e.g., family, fellow students, culture, religious affiliations, associations, and others) that are nested within life's broader macro contexts (e.g., the socio-cultural, political environments, and others) (Smith and DeFrates-Densch, 2008). One of the critical assumptions of relational developmental systems theories is that the developmental system is sufficiently intricate, that some means must be discovered through research to pair individual and context in ways that increase the likelihood of positive change, of promoting more positive aspects of human development (Lerner et al., 2009). Bronfenbrenner's Bioecological theory is an example of these models. Even though the theory initially focused on child development at its inception, it has been used extensively in research studies to understand the development of young adults, particularly students at the higher education level. Scholars have recognized the use of an

ecological approach in young adult development, particularly in terms of skills and intellectual development, and it is an appropriate theory for analysing their development.

Using Bronfenbrenner's (1979; 1994; 2005) Bioecological systems theory to frame accounting students within a nested set of contextual environments, this research question focused on both dispositional and systemic factors influencing the development of pervasive skills by accounting students aspiring to be chartered accountants during the academic programme (before entering the training programme).

### 5.2.2 Definition of the Bronfenbrenner's Bioecological Theory

There are several definitions of the BBT in academic literature from the one initially provided by the presenter of the theory, Urie Bronfenbrenner (1917-2005).

Bronfenbrenner posited the Bioecological Theory of Human Development, sometimes known as an ecological model or approach, to explain how human development occurs, emphasizing the influence of context. Bronfenbrenner's Theory's basic notion was that people are always influenced and shaped by their settings. This implies that one's environment influences development, and the key feature of the theory, proximal processes, personal characteristics, context, and historical time interact to influence those processes (Tudge et al., 2009). As Bronfenbrenner phrased it, the theory was developed to explore not just "the forces that have shaped human development in the past, but also the forces that may be operating today to influence what human beings may become tomorrow." (Bronfenbrenner and Evans, 2000:117).

### 5.2.3 History and development and description: Bronfenbrenner's Bioecological Theory

Bronfenbrenner's thinking on development was an extension of and was heavily impacted by Kurt Lewin's work. Lewin argued that examining the opportunities and constraints of the environment in which behaviour occurs is the first step in understanding individuals' behaviour. He proposed the equation  $B=f(P, E)$ , which characterizes behaviour as a function of both the individual and the environment. According to Lewin, the environment is everything that is not a person yet influences their actions (Krebs, 2009). Examples of the environment following this thinking include the family, friends or other people, and the social and economic environment.

From the time it was first introduced in the 1970s until Bronfenbrenner died in 2005, Urie Bronfenbrenner's theory of human development underwent significant developments. The development of this theory is said to have followed a series of phases. The earliest concept papers concerning Bronfenbrenner's theory, according to Bronfenbrenner and Evans (2000), were authored between 1970 and 1979, indicating the beginning of the theory's progression.

### **Phase 1 of the theory development**

According to Bronfenbrenner and Evans (2000), the first phase of theory focused primarily on describing the qualities and influences of various settings (microsystem, mesosystem, exosystem, and macrosystem). During the early stages of the development of Bronfenbrenner's theory, which he referred to as an ecological approach to human development or an ecological model of human development, several scholars and his father significantly influenced his thinking (Bronfenbrenner, 1974; Bronfenbrenner, 1979). Also, Bronfenbrenner (1979) stated that scholars like Lewin, Vygotsky, and Piaget influenced him intellectually. With his ontologically stated phenomenological field that defined a person's ecological context (Lewin, 1936), Kurt Lewin significantly influenced Bronfenbrenner's thinking (Bronfenbrenner, 1974; Bronfenbrenner, 1977). On the other hand, Bronfenbrenner is said to have assisted in transforming Lewin's behaviour model into the human development model to meet the needs of a straight development description with some limitations.

### **Phase 2 of the theory development**

Between 1983 and 1993, different studies indicated the second phase of the theory's progression.(Bronfenbrenner, 1986; Bronfenbrenner, 1989; Bronfenbrenner, 1993; Bronfenbrenner and Crouter, 1983). The second phase was when he identified and offered his ecological paradigm. In the second phase of the theory development, Bronfenbrenner sought to address a gap that had been pointed out in the original theory, the missing role of the person's characteristics in his or her development. In addition, he paid attention to how the passage of time may also affect one's development. These developments gave birth to the model referred to as the Person-Process-Context model (Bronfenbrenner, 1986; Bronfenbrenner and Crouter, 1983) and then subsequently, the Process-Person-Context model (Bronfenbrenner, 1988). This meant that in examining the development, the new models suggested various combinations of person traits or characteristics and contexts.

### **Phase 3 of the theory development**

Between 1993 and 2006 (after Bronfenbrenner died in 2005), the third and final version of the theory was constructed (Bronfenbrenner, 2005; Morris and Bronfenbrenner, 2006). During this phase, the conceptualisation of human development was revised by Bronfenbrenner, who worked closely with Morris. The third version of the theory was dubbed the 'Bioecological Theory,' whose main goal was to demonstrate how individual qualities, in combination with spatial and temporal components of the setting, impact what Bronfenbrenner termed 'proximal processes'—the 'engines of development.' The Bioecological Model, according to Bronfenbrenner, is "an evolving theoretical system for the scientific study of human development over time." (Morris, and Bronfenbrenner, 2006: 793). This revised model suggests that the four parts that make it up (process, person, context, and time - PPCT) all impact human development; their impacts are not only cumulative. That is to say, the Process-Person-Context-Time framework guides Bioecological theory as a force that drives human development.

The first 'P' in the PPCT Bioecological model is for '**process.**' The process refers to proximal interactions between the individual and the context (things, symbols, and people on the different levels as an essential mechanism of human development (Krebs, 2009). To emphasize, Bronfenbrenner argued that development is a set of processes that mediate the interaction of a person's attributes with his or her environment to achieve permanence and development in a person's life qualities. The processes, according to this theory, are critical to achieving development. The second 'P,' relating to 'the **person,**' highlighted the person's role in their own development. The person, his or her personality, genetic characteristics, and other human variables such as attitudes are at the core of the Bioecological systems theory (Subotnik et al., 2003). As part of the second P of the PPCT model, Bronfenbrenner defined three sorts of 'person' traits. Force (or "disposition") is seen to be the most likely to influence a person's developmental results, whether in a generative or disruptive way. Disruptive force qualities can impede proximal processes, whereas constructive force features can originate or sustain them. As previously explained in previous versions of the model, **context** comprises four systems, the microsystem, macrosystem, mesosystem, and exosystem. **Time**, also referred to as the chronosystem, references variations or patterns over time of the person's and the environment's characteristics (Bronfenbrenner, 1999).

While environmental conditions may appear objectively similar to an observer, Bronfenbrenner's model recognizes the importance of individual subjective understanding of the world so that while environmental conditions may appear objectively similar to an outsider, each individual will interpret and interact with that environment based on their subjective views and experiences of the environment.

There are different interpretations of how humans develop, but a holistic perspective, such as that advocated by Bronfenbrenner, seems to have a strong appeal to systems theorists. Bronfenbrenner's theory is a systems theory that can deal with a wide range of environmental conditions and a wide range of people in various interactional connections and processes. Simply stated, Bronfenbrenner created a systems theory that reflects people's interactions and dealings in various contexts. Bronfenbrenner emphasizes the impact of various levels (or systems) and sizes of settings on development, particularly social and cultural surroundings. Moreover, the theory's focus on people's responsibilities, actions, and relationships within these contexts is a meaningful approach to examining how people interpret their situations and how that comprehension translates into development or behaviour. According to Bronfenbrenner's Bioecological Theory, another critical aspect to note is that education aims to foster optimal development.

The earlier version of the model with various layers was extended into a more complex web of interdependent systems in 1977. Bronfenbrenner envisioned the world as a dynamic arrangement of four interrelated structures, with the structures closest to the developing individual encased within the structures further away. He coined the terms mesosystem, exosystem, microsystem, and macrosystem. A detailed description of each system is provided in Bronfenbrenner (1977).

### **Macrosystem**

According to the Bioecological Theory, the socio-cultural environment is the macrosystem, and this system expresses beliefs, societal norms, conventions, and cultural values. Also, certain cultural notions, such as laws, rules, information, and ideology, are considered part of diverse macrosystems. The macrosystem provides the broad cultural and structural setting and the long-term effects of events or transformations in a person's life. Even though culture is not defined all on its own in this theory, it is claimed to constitute the macrosystem and the mesosystem's theoretical frameworks (Bronfenbrenner, 1977).

Based on its description, it would seem that the macrosystem also fosters the societal attitudes and behavioral designs that characterize class distinctions and the possibilities and problems that come with it. Although the substance, events, and changes occurring in that societal context appear less proximate to the individual in their everyday experience, each person is profoundly influenced by them (Smith and DeFrates-Densch, 2008). According to the Bioecological Theory, resources, lifestyles, opportunity structures, and life path alternatives embedded in a specific culture at a particular period are reflected in this system (Bronfenbrenner, 2005).

With specific reference to this study, for accounting students' development of pervasive skills, overall contextual assumptions that shape the entire system would be the indirect influences of government policy, professional bodies' regulations, legislation, employment, and culture. Class culture's perceptions, attitudes, beliefs, and power relations trump difficulties such as a lack of material resources and other variables contributing to inferior achievement among people in these situations. Moreover, obstacles ingrained in socio-political frameworks could stifle one's ability to strive for their goal, resulting in one's ability to develop the necessary skills to go untapped.

### **Exosystem**

According to Bronfenbrenner, the exosystem is the ecological model's third circle. The exosystem consists of broader structures of society in which people may or may not be defined formally but have a significant impact on individuals. These structures impact individuals even though they have no direct participation (Bronfenbrenner, 1979). Examples include the media, university policies and regulations, organized religion, research and development, and even parents' work lives (children and young adults living with or financially dependent on parents). For young adults enrolled at university for study purposes, the exosystem would affect the student without directly involving them; examples include the regulations by the Department of Higher Education, university rules and regulations, policies for financial assistance such as NSFAS policies, and even the regulations by the Department of Education and professional bodies such as the SAICA (for accounting students) and others. From this discussion, it is clear that individuals, more specifically students, are affected by these social contexts they are not a part of, and their effects are widespread, even if they are occasionally unnoticed. For instance, the exosystem can influence students from disadvantaged socio-economic circumstances by inadvertently limiting opportunities.

## **Mesosystem**

Bronfenbrenner described a mesosystem as the interactions between two or more microsystems in which a developing person is actively involved. In addition to interactions between the microsystems, this system reveals the parallels and discrepancies between them. This system is argued to be established or broadened each time a person enters a new context (Bronfenbrenner, 1979), and it is minimized when the situation is reversed. The growth properties of the mesosystem are related to those of the microsystem, with the primary distinction being that rather than occurring within a single microsystem, the activities, interpersonal roles, and relationships occur across settings (Bronfenbrenner, 1979). Put another way, a mesosystem is a collection of microsystems (Bronfenbrenner, 1977). To young adults enrolled at university, the mesosystem would be indicated by processes that occur between microsystems or as a result of their contact and or confluence, such as the campus culture. One of the negatives concerning this system is that when these microsystems or environments are vastly different, contradictory statements about how to 'act' within each one can emerge (Baker, 1997), possibly posing a challenge to young adults still focusing on shaping their behaviours and on developing critical pervasive skills. Indeed, constant transitions from one context to another result in conflicting cues about appropriate behavior in each environment, which can lead to confusion. Positive behaviors in one situation may elicit negative responses in another; for instance, speaking up at university may be encouraged in order to improve communication skills, but this may not be the case at home.

## **Microsystem**

The description of the micro system has changed throughout improvements of the theory. Previously, the microsystem was formerly thought to consist of patterns of activity in the immediate environment, but some of the activities have since been defined as comprising interactions with symbolic characteristics, such as interactions with people, things, and symbols (Bronfenbrenner, 1995). Essentially, this system represents the immediate contexts in which the person finds himself/herself. Furthermore, Bronfenbrenner adds that "For reciprocal interaction to occur, the objects and symbols in the immediate environment must be of a kind

that invites attention, exploration, manipulation, elaboration, and imagination” Bronfenbrenner (1999:6).

With specific reference to young adults enrolled at university, the micro-system would include activity and face-to-face encounters with family, peers, friends, roommates, relatives, team members of a sports club, and others. Granted that, the family's role in the student's development is critical. As prior research has pointed out, gender and birth order can impact how a family views and socializes a young person, ultimately resulting in different skills and competencies among the siblings (Marks et al., 2009; Sulloway, 1999). Also, the family's socio-economic background plays a role in the development of a child or young adult. Bronfenbrenner (2005) pointed out that families can play an essential role in realizing and nurturing potential irrespective of socio-economic circumstances. More specifically, it would seem that families are also in a position that allows them to encourage values and attitudes that support skills development. In addition, parents who can afford to can contribute resources in the form of money and time, which can be reflected in extra classes and extracurricular educational opportunities where the development of skills like communication, stress management, and decision-making can be supported.

Other key role players in the development of young adults and their drive to succeed include mates or peers. Jones et al. (2012) acknowledged the role of peer-to-peer support in developing employability skills. Also in agreement, Bloom (1985) argued that the drive to succeed in young adults is frequently provided through peer rewards and recognition.

### **Chronosystem**

According to the Bioecological Theory, the chronosystem indicates the sequence of events, transitions, and socio-historical events that have influenced the person over time. That is to say, events that transpired before a person's lifetime can profoundly impact and determine how a person develops, showing how societal benefit or adversity is passed down from generation to generation.

With specific reference to the development of pervasive skills by accounting students, this observation would explain why some students demonstrate excellent levels of pervasive skills

while others demonstrate poor pervasive skills despite being exposed to the same interventions designed to enhance their pervasive skills. Essentially the theory suggests that different environmental situations produce diverse developmental outcomes. The consequences of which are determined by the human characteristics of those who live in these circumstances.

Given that there are three versions of the theory, this study adopted the final version. There is nothing wrong with grounding one's study on an older version of the theory or even a subset of its fundamental principles, as Tudge et al. (2009) stated; nonetheless, to prevent theoretical ambiguity, one should be transparent about the study's precise theoretical basis.

### 5.3 Challenges with pervasive skills development of accounting graduates

The issue relating to the skills gap between what accounting graduates offer and what other stakeholders, such as employers, expect has been studied for more than a decade. There seems to be an overwhelming consensus in accounting literature that there is a need for accounting education to narrow the expectations gap between what accounting graduates possess in terms of pervasive skills and what employers desire, to make the graduates more work-ready, thus enabling them to lead successful careers in the field (Weaver and Kulesza, 2014; Wilson, 2011). That is to say that prospective employers expect graduates who require minimal workplace training who can adapt quickly to a professional work environment. With that in mind, employers expect accounting graduates to have pervasive skills that would enable them to make an immediate contribution in the workplace, and such skills are said to increase their chances of employability (Curtin, 2004) and career success (Arquero et al., 2007). To point out, one of the most significant gaps between employer expectations and what universities can provide is in accounting application skills, among other things (Van Romburgh and Van Der Merwe, 2015).

Other scholars, in trying to understand why a gap exists between what graduates possess in terms of pervasive skills and what employers expect, argue that the gap could be a result of the clashing perspectives of academics and employers on how these skills are envisaged at university and how these are practiced in the professional workplace (Jones, 2010; Wilson, 2011). If these views prove valid, this situation would not be helpful to accounting students as such an argument could suggest that some skills that are instilled at university levels are not readily transferable into professional accounting workplaces (Jones, 2014). Not to mention that

if accounting education fails to focus on pervasive skills, graduates may not be prepared for their successful global careers in the field (Awayiga et al., 2010).

The discussion above points to a perpetual challenge that requires urgent attention. With that in mind, the stakeholders involved in the accounting profession have prioritised this issue and are continually making changes to introduce new interventions designed to improve the situation

#### 5.4 Current debate: Responsibility for pervasive skills development

Another issue that surfaces in research studies relating to this phenomenon is that there are currently varying views about where the responsibility for instilling pervasive skills in aspiring CAs lies (Strauss-Keevy, 2014; Barac and Du Plessis, 2014). There has been much debate about the responsibility for ensuring that aspirant chartered accountants are adequately equipped with the appropriate pervasive skills before their registration as members of the accounting profession.

Some scholars have presented arguments that suggest that the academic programme, through accounting academics are the ones who ought to be primarily responsible for the nurturing of the development of the absent pervasive skills in accounting students (Bui and Porter, 2010; Hassall et al., 2005; De Villiers, 2010; Helliard, 2013; Kavanagh et al., 2009). A local study by Barac and Du Plessis (2014) evaluated how universities teach and accept their responsibility for students' pervasive skills development. The study concluded that the Heads of Accounting Departments (HODs) identified the teaching of pervasive skills as their responsibility and that most HODs thought that the acquisition of pervasive skills by students is achieved better in the real world than in lectures. This view suggests that academics embrace their responsibility for instilling pervasive skills and acknowledge the critical role of the training programme in this regard.

Other scholars view this issue differently; this is evident from the arguments presented in numerous studies. For some scholars, the responsibility for improving graduate employability does not fall solely on one side (Lim et al., 2016); instead, effective collaboration among students, employers, professional bodies, faculty, and even policymakers in higher education is required for a successful outcome (Ayoubi et al., 2017). More specifically, Keevy and Mare

(2018) maintain that the academic and training programmes have an equal responsibility for the students' pervasive skills development. To emphasize, Van Romburgh (2014) argues that the academic programme cannot be expected to generate entirely qualified accounting professionals, as certain skills can only be acquired during work experience.

In terms of employers' take on this debate, a study by Gray and Murray (2010) revealed that employers also believe this responsibility ought to be shared among academics, students, and accounting firms (Gray and Murray, 2010). Although the academic programme is to share this joint responsibility with the training programme, Barac and Du Plessis (2014) argue that the SAICA Framework does not provide clarity on what the shared responsibilities are and on, where one's responsibility (academic programme) ends, and the other starts (training programme).

A different point on this issue by De Lange et al. (2006) suggests that professional bodies should expand their role in ensuring that accounting students develop the requisite skills because academics are already dealing with a demanding accounting curriculum. Another different but interesting view is that the responsibility for developing pervasive skills should start even earlier. A joint responsibility should involve high school teachers, whose role should be to prepare the students to transition from being unfocused high school learners to become members that can contribute as members of a professional service team (Kermis and Kermis, 2010). However, the accounting profession recognises two settings in which professional accounting skills, attributes, and abilities should be developed or refined: the academic programme, which should introduce these skills, and the professional workplace. The training programme is expected to refine these skills and attributes (Wells et al., 2009).

## 5.5 The academic programme and pervasive skills development

The call for an added focus on skills development has come from various fronts, including professional bodies, employers, academics, and policymakers. With regard to policymakers in the South African context, the FASSET Sector Education and Training Authority (SETA), a body responsible for the development of skills in the financial sector which includes tax, accounting, bookkeeping and auditing services, finance, management consulting, tax and other relevant financial services as established by the Skills Development Act No. 97 of 1998 (Republic of South Africa, 1998) believes that skills development should be prioritised in

academic programmes. Some argue that these calls result from changes in the global economic space, which have been witnessed in the accounting profession.

The changes in accounting have resulted in a demand for 'practice-ready' graduate accountants with a wide array of skills and technical competence (Reyneke and Shuttleworth, 2018). With that in mind, the academic programme, accounting education's primary goal is to prepare graduates for entry-level positions as trainee accountants in the industry (Hartle et al., 2011). Also, SAICA specifies that academics are responsible for ensuring that potential CAs' competencies are established, as stated in the SAICA Competency Framework (SAICA, 2014a; 2016a). Because of this, accounting education, as some researchers argue, should be responsive to changes taking place globally and to changes introduced by the professional bodies; furthermore, it is required to adapt in order to incorporate a wide range of skills sets that are aimed at equipping the students with skills to adapt an ever-changing world of accounting (Low et al., 2013). With that in mind, accounting education has received increased attention, with some even questioning its ability to produce graduates who would be able to cope with the requirements of today's accounting profession (Albrecht and Sack, 2000; Jackling and Watty, 2010).

Many universities offering accounting programmes have embraced their responsibility to inculcate pervasive skills in students and have opted to do so along with the academic programme to ensure the professional competence of their graduates (Vijayalakshi, 2016). As a result of the critical nature of pervasive skills, many higher education institutions have inculcated pervasive skills in their academic programmes to enhance graduates' professional competence (Vijayalakshmi, 2016). However, Levant et al. (2016) indicate that skills development is a complex process that warrants careful analysis.

Low et al. (2013) studied the role of tertiary education in providing pervasive skills training to accounting professionals. They concluded that it is critical to develop communication, coordination, and problem-solving skills as early as possible in the students' path to qualifying as a chartered accountant. The study further suggests that accounting education should incorporate a wide range of pervasive skills to enable graduates to cope with the changing working environments the students will find themselves working under. Finally, the study

suggested that all accounting students should exit the tertiary level having acquired critical thinking, analytical, time management, and teamwork and leadership competencies.

However, Tan and Fawzi (2017) argue that in as much as higher education institutions have explored and adopted various strategies to aid the development of pervasive skills by accounting students, and there is little evidence that suggests that accounting education has changed in order to meet the demands of the employers of accounting graduates. Some are still convinced that technical knowledge is prioritised over pervasive skills and qualities in the accounting curriculum, resulting in students that are deficient in critical thinking skills (McGuigan and Kern, 2013). Notwithstanding such views, Cory and Pruske (2012) believe that academic accountants have worked hard in bringing about change that will better suit the needs of employers, but with limited success. There is also little evidence to suggest that the employers of accounting graduates see a positive change in terms of pervasive skills demonstrated by accounting graduates (Tan and Fawzi, 2017). Hence, some still argue that accounting education still has room for improvement when it comes to the acquisition of pervasive skills by accounting students (Low et al., 2013).

Several research studies suggest that accounting education is not producing accounting graduates ready for professional practice (Hakim, 2016; Hesketh, 2011; Mathews and Redman, 2001; Mohamed and Lashine, 2003). Indeed, accounting education has been a subject of many scholarly debates. These debates have resulted in several studies into accounting education's abilities and deficiencies in terms of producing accounting graduates that are likely to meet the expectations of employers concerning learning and professional development (Albrecht and Sack, 2000; Cory and Pruske, 2012) and that seek to make recommendations as to how this objective could be achieved.

In some instances, academic scholars have criticized accounting education for producing graduates who do not demonstrate the capacity to think mainly about the effects of their decisions on other stakeholders except those they serve, the shareholders, and employers (Kranacher, 2006). In addition, some even question whether accounting students are supported adequately for the transition from university to their professional accounting careers (Kavanagh and Drennan, 2008). The studies highlighting the deficiencies of accounting education go as far as blaming it for accounting/audit failures, including Enron, WorldCom, and Arthur Anderson (Russell and Smith, 2003).

The call for accounting education to widen the scope of the accounting curriculum comes from employers and from within the profession via professional bodies (Arquero et al., 2007). These calls coming from various stakeholders in accounting have created much activity and pressure for accounting education, which has resulted in a quest to find ways in which the pervasive skills of accounting graduates could be improved (Bayerlien, 2017). Of course, all such efforts are geared towards ensuring that accounting students are adequately prepared for professional practice or a career in accounting (Crawford et al., 2011) through their adaptability and flexibility.

Despite the pressure, He et al. (2013) argue for cooperation between professional bodies and accredited universities in this regard. Indeed with adequate education and training, accounting education is meant to prepare accounting graduates for their ever-changing professional careers. Again, the role of accounting education has been made clear: to prepare accounting graduates who can compete successfully in the global economy (Kermis and Kermis, 2010). Not only are aspirant accountants expected to be equipped with the skills and technical expertise, others argue that accounting subjects should be able to produce accountants that are more aware of how their practice may impact people socially in their different contexts. That aspirant accountants should be encouraged to have conversations about how specific accounting treatments may impact other people (Dellaportas, 2015). Correspondingly, employers also expect accounting academics to inculcate relevant pervasive skills to enable graduates to offer the best customer/client service and cooperate with others in the workplace (Evenson, 1999). After all, much has been expected of accounting education recently, from producing graduates with a balanced set of skills to showcasing, through the accounting curriculum, that contemporary accounting is much more than just balancing numbers but is much more involved, including providing advisory services to clients (Stivers and Onifade, 2013).

Indeed, it has become clear that accounting education has to change in line with the accounting field changes to produce graduates who would be better prepared for the 21<sup>st</sup>-century business environment (Mohamed and Lashine, 2003). For these reasons, accounting courses worldwide cannot be content-driven and solely focused on technical skills but must include non-technical skills to produce graduates that meet the demands of the 21<sup>st</sup>-century complex accounting profession (Ahadiat and Martin, 2016). Notably, one of the objectives of accounting education

is to strike a balance between what employers of accounting graduates (who seem to prioritise skills and capabilities that are inadequately developed in accounting graduates) require of the graduates and what they can realistically achieve in terms of producing graduates that are relevant and employable (Jones, 2010).

As it may seem impractical to ensure that all the pervasive skills are developed in the academic programme, it may be helpful for accounting academics to prioritise only those skills identified as crucial for entry-level employment in the profession (Tan and Fawzi, 2017) as time constraints limit what academics can do. Notwithstanding all these concerns, accounting education is said to be working hard to improve graduate attributes and ensure that the graduates meet employers and professional bodies' expectations (Bayerlein and Timpson, 2017). In fact, the academic programme remains committed to producing graduates who own a skill set that is closely aligned with what prospective employers of accounting graduates expect of them (Abayadeera and Watty, 2014).

Another point of contention is which of the desired skills an academic programme can actually instil in aspiring accountants; as a result, different scholars hold opposing viewpoints on the subject. Problem-solving, critical thinking, sound judgment, decision-making, professionalism, communication skills, and ethical behaviour are just a few of the skills that can be fostered during an academic programme, according to Streng (2012). On the other hand, it was concluded that communication skills, critical thinking, teamwork, creativity, pressure and time management, and more are among the skills cultivated in an academic programme (Berry et al., 2011). These two studies provided an international perspective on this matter. In the South African context, a study by Viviers (2016) suggested that the academic programme can help students develop teamwork, communication, problem-solving, strategic thinking, time management, critical thinking, and a few other skills.

Considering all the views and arguments presented for and against accounting education, it remains clear that regardless of all the concerns, challenges, and barriers, accounting education still has a critical role in the development of pervasive skills by accounting students. As a result, more support must be provided to this critical function. Granted that, university accounting programmes in South Africa, Australia, France, Spain, Tunisia, United Kingdom, United States of America, and possibly many others have undergone revisions in order to provide training that narrows the expectations gap between employers and students' skills and attributes (Klibi

and Oussii, 2013). For instance, in Australia, Keneley and Jackling (2011) reported that universities now require graduates to develop a set of 'generally accepted' generic skills that would be integrated into degree courses across all universities, demonstrating universities' commitment to enhancing skills that include lifelong learning, technical training, oral, written, and interpersonal skills, as well as exposure to organizational and information technology skills. For these reasons, academics are urged to shift their focus from teaching accounting rules to teaching accounting concepts, which not only supports students in recalling the rules but also expedites the development of critical thinking, communication, problem-solving skills, and lifelong learning (Jennings, 1998). All these proposed interventions highlight the importance of prioritising pervasive skills development in accounting academic programmes to ensure accounting graduates' relevance in the workplace.

In summary, it would seem that because of the context limits of their profession, as accounting literature suggests, it may be challenging for academics to foster the development of all appropriate pervasive skills in all accounting students. Indeed, accounting academics are not functioning in a vacuum; rather, they are constrained by contextual constraints that limit their ability to build student skills (Bui and Porter, 2010; De-Lange et al., 2006; Kavanagh and Drennan, 2007). From the literature reviewed, it is clear that the role of the academic programme in the development of pervasive skills by aspirant accountants is essential. However, this role may be hindered or enabled by the presence of factors, some of which may not be fully controllable by the academic programme itself; such factors may be out of the classroom factors and situations.

## 5.6 Factors that enable/hinder the development of pervasive skills

One aspect that illustrates why accounting education may seem to some as deficient in instilling pervasive skills in accounting students is the contextual factors indicated in various literature. Hence, developing the expected pervasive skills could be challenging to some accounting students who aspire to join the accounting profession and may be natural to others, but not so much for others, due to contextual, social, and other factors. These factors may include but are not limited to psychological (personality and background), physical, cultural, mental, and emotional (self-esteem), education-related, and academic-related factors. These may also include stress, ill health, fear of change, and others) and students' perceptions about the importance of pervasive skills to their accounting career and preparation for it.

These variables may be either inhibitors or constraints, while some may be enablers to the growth of pervasive skills, explaining the discrepancy – why some accounting students seem to demonstrate better pervasive skills and others do not. Bui and Porter (2010) conducted a study that focused on the constraints that hinder accounting students' development of pervasive skills. The constraints identified were categorized into teacher-related, student-related, and institutional constraints.

More specifically, various constraints may also hinder the ability of academic programmes to deliver on the pervasive skills development mandate. Such constraints, as identified by various scholars, may include, among others, time constraints, and the unavailability of resources to teach the skills. (Tan and Fawzi, 2017), large class sizes (Tempone and Martin, 2003) and creating a learning environment that would suit a diverse nature of students with varying abilities and cultural orientations (Keneley and Jackling, 2011) while bearing in mind the demands of the accounting curriculum. Additionally, as Bui and Porter (2010) concluded, student entry requirements into the accounting programmes, inadequate resources, and institutional policies in some universities that favour research over teaching for promotions are also factors that must be considered.

#### 5.6.1 The development of pervasive skills is better developed in the workplace

Several arguments have been presented on how and at which stage of professional preparation accounting graduates should develop pervasive skills. Some argue that the development of the required pervasive skills ought to be developed by the time graduates enter the professional work environment, while other scholars argue that the development of these skills is better facilitated in the workplace (Tan and Fawzi, 2017) and during the training programme (Jackling and De Lange, 2009). Introducing a point of clarity, Wilson (2011) argues that one of the reasons why accounting education is seen to be unable to produce competent practitioners is that specific competencies can only be acquired on the job.

Supporting the argument that the work environment is the best place for instilling pervasive skills is Tse (2010), who argues that pervasive skills may be better developed through work placements or internships. This is because work placements or internships give students exposure to 'real life' work situations and students get a chance to consolidate technical

knowledge and skills obtained at university, which ought to improve their employability. In her review, Cranmer (2006) shared similar views by suggesting that training in the workplace can be more effective in developing pervasive skills rather than imparting these skills in the accounting curriculum. Also, in agreement, Levasseur (2013) states that continuous practice and analysis of performance feedback, whether on self-reflection or constructive input from others, supports continued improvement of the skills, supporting the notion that the workplace is better suited for this task.

Even in other fields, skills such as critical thinking, communication, and teamwork have been said to be more established when a person has spent years on the job (Messum et al., 2015). However, opposing arguments often surface in research studies, with some arguing that the academic programme should be accountable for ensuring the development of pervasive skills by accounting students, which the students ought to demonstrate in professional examinations, the APC (Hesketh, 2011).

Crebert\* et al. (2004) argue that pervasive skills such as problem-solving, critical thinking, and communication skills may be effectively developed during the academic programme. Maelah (2011), on the other hand, argues that skills such as communication, teamwork, and leadership skills are better developed during workplace training. Furthermore, according to Stone et al. (2013), as much as academics may undertake this task, they cannot replicate the students' exposure to the professional context, and disciplinary discourse. Another point often overlooked is that not all accounting academics may be equipped with the skills to undertake this exercise. Hence, the training programme may be best suited for this task (Strauss-Keevy, 2014). A similar view is shared by Stone et al. (2013: 184), who state:

*“It is arguably unreasonable to expect university educators first to remedy this skills deficit and then effectively develop communication skills while ensuring that students have satisfactorily completed the technical accounting content that the professional bodies prescribe, all within the confines of a typically three-year undergraduate programme.”*

The argument that the training programme better prepares the accounting graduates in terms of pervasive skills is not new. Back then, Cates-McIver (1999) suggested that professional training benefits aspirant accountants because they acquire critical thinking, communication, and teamwork skills. Employers also benefit in the process as they can take that as a pre-

recruitment period, a chance to attract the graduate. Jackson (2016) argues that employers also have an essential role in developing these skills in accounting graduates. In a like manner, Jackson (2013) argues that professional accountants should be provided with an opportunity for pervasive skills training by employers in to succeed in the long term. Under those circumstances, the issue that seems to raise questions is whether the aspirant accountants should, during their traineeship, already be fully proficient in owning and demonstrating these skills with limited or no guidance or whether these graduates can still be guided or supervised by audit managers.

Paisey and Paisey (2010), in their study, summarised the skills that accounting graduates obtain from professional training as perceived by accounting graduates from two different universities (see Figure 5.1). This suggests that the critical pervasive skills are mostly developed in the workplace. Another angle on this issue, however, suggests that the size of the accounting firm (where accounting graduates undertake their training programme) may determine its ability to instil the necessary skills and skills expected of new entrants. A Turkish study by Uyar and Gungormus (2010) revealed that the size of the accounting firm has an impact on the type of pervasive skills they expect from those entering such firms, with big firms showing more preference towards communication and teamwork skills than smaller firms. In South Africa, accounting firms' size varies, with most firms small or medium (Independent Regulatory Board for Auditors, 2016). Correspondingly, Wines et al. (2013) argue that smaller firms may have limited training programmes due to limited technology, low fee structure, and fewer clients, unlike the Big Four firms. Although this may be true, SAICA has stated that no firm will be denied the opportunity to be a training office because of its size. SAICA contends that as long as the firm can provide sufficient work experience of sufficient scope and depth to allow for adequate personal and professional development and sufficient experience of the ethical dimension of the accounting profession, it may be a training office (SAICA, 2020a).

The view of the IFAC through its Handbook of International Education Pronouncement supports the view that both programmes (academic and training programmes) are equally responsible for embedding the necessary pervasive skills, further pointing out that the academic programme should be laying the foundation and that the training programme should fulfil a complementary role (IFAC, 2015). Similarly, Crebert et al. (2004) looked at how pervasive skills were taught in diverse contexts, such as at university and work, and discovered that 80 percent of graduates learned these skills in roughly comparable quantities in both contexts. The

graduates(who were participants in that study) claimed that participating in various group activities at university was the best method to develop such abilities while working with other employees was the best way to learn such skills. Also in support of a joint responsibility are accounting students themselves (Keevy and Mare, 2018).

The SAICA also proposes a complementary role of the training programme, which should, in addition to pervasive skills, also cover technical skills (SAICA, 2016b). Likewise, Kavanagh and Drennan (2008) maintain that training is an essential component that should supplement the lack of an academic programme in embedding pervasive skills. Correspondingly, in order to ensure the readiness of accounting graduates for their vital roles in business and public practice, Keevy and Mare (2018) argue that the academic and training programmes have a particularly critical role to play in ensuring the preparedness of the graduates in terms of pervasive skills and attributes as well as technical competence. Again, Barac and Du Plessis (2014) revealed that the heads of academic accounting departments of universities offering accredited accounting programmes in South Africa believed that both programmes should share the task of instilling pervasive skills but with more reliance placed on the training programme. In contrast to evidence that presents the view that the academic and professional programmes should share the responsibility for developing pervasive skills, Kavanagh et al. (2010) believe that the academic programme has a primary duty in this aspect.

The arguments presented above that pervasive skills are better developed outside the classroom, e.g., in the workplace, could be compelling evidence that points to why it remains a challenge for the academic programme to help students develop the required pervasive skills to the expected standard.

Students' views of the development of skills.

	University A			University B		
	% believing 'strongly developed'	Rank	% believing 'strongly developed' or 'moderately developed'	% believing 'strongly developed'	Rank	% believing 'strongly developed' or 'moderately developed'
Ability to extract and analyse information from a variety of sources	70	1	97	49	7	96
Time management	66	2	96	34	12	88
Ability to interpret financial information	66	3	95	78	1	97
Meeting deadlines	64	4	98	54	4	94
Computer ability	64	4	93	37	11	85
Oral communication	58	6	96	61	3	90
Listening	45	7	95	43	9	90
Critical thinking	40	8	95	43	9	94
Working in a group	40	8	89	69	2	94
Problem solving skills	38	10	95	51	6	93
Coping with stress	36	11	85	54	4	79
Written communication	35	12	93	46	8	94
Ability to generate practical ideas	32	13	90	31	13	81
Creative thinking	23	14	82	16	14	79

**Figure 5.1 Skills that accounting graduates obtain from professional training as perceived by accounting graduates from two different universities (Paisey and Paisey, 2010:95)**

### 5.6.2 The acquisition of pervasive skills is independent of the accounting curriculum

Another factor that may hinder the acquisition of pervasive skills by accounting students during the academic programme has been linked to how and where these skills are acquired in the first place. A view held by some scholars is that these skills seldom are acquired in the confines of the classroom but are instead acquired mainly through other activities independent of the academic programme. For instance, pervasive skills are said to be gained in two ways, according to Remedios (2012): formal training and self-training. This view highlights the person's role in developing the requisite skills and does not leave the responsibility solely to the academic programme. To emphasize, in Low et al.'s (2013) study, the Big Four partners acknowledged the critical role of the academic programme for this responsibility but also suggested that its role is to enhance these skills because the development of these skills takes place during one's upbringing and rich conversations with others as opposed to the classroom. By all means, life experiences can be used to teach pervasive skills (Weber et al., 2009). Another study that presents essentially the same view is the one presented by Atkins (1999), who proposed that students might gain essential pervasive skills in their daily lives, travel, and community service, as well as through joining societies.

Also, in support of this view, Levant et al. (2016) argue that knowledge and skills are constructed and not necessarily transferred by the academic to the student receiver. Also showing support for this view is a quote from the Chartered Institute of Personnel and Development (CIPD), which states:

*“The most important soft skills are best learned with a small amount of highly focused and relevant formal input, a large amount of real-world experience, practice inside and outside of one’s comfort zone, and timely, relevant and constructive feedback from other people in a community of practice, and where the consequences of what we do can be easily observed and understood” CIPD (2010:30).*

Low et al. (2013) also concur with this view and suggest that some pervasive skills develop because of upbringing, rich conversations, and not so much from education. These skills are also argued to be developed through personal and professional development based on learning (Bratianu and Vatamanescu, 2017). For instance, previously, decision-making skills were thought to be unteachable. However, these skills were believed to be learned over time and in proportion to one's age; on the contrary, some studies have proven that decision-making abilities may be taught (Klaczynski et al., 2001).

A study conducted on accounting graduates revealed that accounting graduates believed that the pervasive skills they acquired during university years resulted from other courses, not accounting courses (Low et al., 2013). Other scholars also claim that extra-curricular activities positively contribute to the acquisition of pervasive skills (Barrie et al., 2009). For one thing, participating in extra-mural activities is said to improve communication skills, leadership skills, and creativity for those who opt to get involved than those who do not (Lau et al., 2014). This is to say that these skills are developed outside the confines of the classroom, e.g., through extra-curricular activities such as going on field trips (Scarinci and Pearce, 2012), volunteering, or serving on social clubs/committees. According to Caruana (2011), academic content leads to the development of various soft skills only when students participate in activities outside of the classroom setting. All these activities, which are outside the classroom, are claimed to improve the acquisition of these skills and the employment prospects of graduates.

### 5.6.3 Time constraints

Time constraints have been identified in some studies as a factor that may affect the ability of the students to focus on their development of the critical pervasive skills and for the academics to focus on instilling these skills adequately (AL Mallak, 2018; Bui and Porter, 2010; Jackling and De Lange, 2009; Milner and Hill, 2008). Time constraints could be due to various reasons, including the demanding or heavy curriculum and the design of the accounting academic programme as prescribed by the accrediting professional body. Milner and Hill (2008) revealed that several accounting academics believe there is “no time” for skills development in the academic programme, owing to the discipline, accounting research, and professional accreditation.

From the students’ side, according to research done by AL Mallak (2018), accounting students claimed there was not enough time in the curriculum to focus on improving pervasive skills. From the perspective of a professional body, according to a study conducted in an American context by the accrediting body for accounting programmes, the AICPA, the existing accounting curriculum put time pressure on academics, resulting in accounting academics having a limited amount of time to focus on pervasive skills development due to the broader accounting curriculum (Parvaiz et al., 2017b). Not to mention that lecture or contact time has not shown an increase parallel to the rising demand in most universities (Jones, 2010). This view suggests that pervasive skills compete with technical skills in the academic programme. Then again, technical accounting content is perceived by some academics as the very essence of an accounting degree programme (Stone et al., 2013).

### 5.6.4 Large class sizes at university

Prior research studies have identified that another factor that may hinder the acquisition of pervasive skills during the academic programme is large class sizes (AL Mallak, 2018). The increased numbers may be due to several factors, such as the popularity of accounting courses and increased university access/participation. Accordingly, there are conflicting views about the increased access to university programmes, and whether the widened access has had beneficial or negative implications (Croxford et al., 2014; Hoare and Johnston, 2011; Leibowitz and Bozalek, 2014). Indeed, education has become more available to all due to the widened access, a much-needed position as claimed by some scholars. However, Brustein (2007) emphasized the negative repercussions, this growth resulted in larger class sizes, increased

academic staff workload, and a shortage of opportunities for students to develop the much-desired pervasive skills.

Due to financial constraints, universities have been unable to hire lecture professionals in proportion to students, according to Bui and Porter (2010). It has been revealed that accounting has long been a popular major in some universities. Also, large accounting classrooms have become common because of the demand for university revenue, which impedes teaching and learning quality (Bui and Porter, 2010). Hassall et al. (2005) also recognized large class size as a primary restricting factor in skills development with specific reference to skills acquisition.

With specific reference to the development of written communication skills in large class settings, Graham et al. (2010) pointed out that in order to achieve long-term progress, more time must be spent training writing skills. They also acknowledged the complexities of teaching written communication skills to large groups of accounting students, which may necessitate language experts' involvement in teaching these skills (ibid). Notably, academics face limitations due to large class sizes, making it challenging or even impossible for them to interact with each student on a one-to-one basis, possibly affecting the development of critical skills such as communication skills (Lynch, 2011). Also reaching the same conclusion are Milner and Hill (2008), who conducted a study with academics in the UK context and found that excessive-class numbers hampered skills development. In fact, the approaches and strategies that have been argued to aid in acquiring pervasive skills by accounting students seem to work best in classes with small numbers.

#### 5.6.6 No separate course or module designed for pervasive skills

Another argument relating to the development of pervasive skills by accounting students relates to whether or not a separate module focusing on pervasive skills is best or if an integrated approach is best. In support of an integrated approach for teaching pervasive skills with other subjects in the degree programme, Hattie et al. (1996) revealed that soft skills training for university students appears to be ineffective; instead, it appears that studying formal subjects and gaining academic knowledge is a better way to develop these abilities. The more typical approach has been based on the assumption that soft skills development should be integrated into the study of the discipline (Gammie et al., 2002; Kember et al., 2007; Moore and Hough, 2007).

Some scholars favour an integrated approach, claiming that pervasive skills may be included in the accounting curriculum and that students can master these skills alongside technical accounting data. However, Jones (2009) noted several impediments to teaching pervasive skills alongside technical material. Some constraints were structural (lack of time to teach pervasive and technical skills simultaneously, huge class sizes). In contrast, others were pedagogical, cultural, and epistemic (where generic skills were not considered to be part of the subject matter studied and thus not worthy of consideration within an accounting degree course).

Sharing opposing views, various scholars are in support of a separate module or course that ought to focus on pervasive skills acquisition by accounting students because if this is not the case, it would seem that technical accounting skills receive more priority in the degree programme than pervasive skills, which may be detrimental to the development of pervasive skills. (Altarawneh, 2016; Braun, 2004; De Lange et al., 2006). In other words, pervasive skills should be taught independently from technical skills (Cranmer, 2006).

#### 5.6.5 The technical nature of the professional academic programme

The growing demand on Higher Education to develop pervasive skills in students has resulted in an increased focus by Higher Education institutions to develop curricula that promotes pervasive skills as these skills are believed to promote students' learning abilities, prepare students for lifelong learning, and foster employability skills (Robley et al., 2005). At the higher education institution selected as the location for the study, the current Bachelor of Commerce in Accounting degree curriculum is a three-year qualification designed to equip students with various technical and pervasive skills. In order to obtain admission into the degree programme, a prescribed entry criterion is used, and in addition to that, prospective students are expected to have:

Good numerical and communication skills

Ethics and integrity

Discipline, determination, and a positive attitude

**Table 5.1 The current curriculum: SAICA-accredited accounting degree: UKZN**

<b>First Year</b>	<b>Second Year</b>	<b>Third Year</b>
<input type="checkbox"/> Accounting 101 and 102	<input type="checkbox"/> Accounting 200	<input type="checkbox"/> Accounting 300
<input type="checkbox"/> Management 110 and 120	<input type="checkbox"/> Economics 201 and 202	<input type="checkbox"/> Auditing 300
<input type="checkbox"/> Information Systems and Technology 101 and 102/3	<input type="checkbox"/> Introduction to Human resources	<input type="checkbox"/> Man Fin 300
<input type="checkbox"/> Quantitative Methods 1	<input type="checkbox"/> Introduction to Marketing	<input type="checkbox"/> Tax and Estate Planning 300
<input type="checkbox"/> Economics 101 and 102	<input type="checkbox"/> Introduction to Commercial Law	
<input type="checkbox"/> Specialised business statistics 1	<input type="checkbox"/> Business Enterprise Law	
	<input type="checkbox"/> Special Topics in Business Law	
	<input type="checkbox"/> Introduction to Business Ethics for Accounting and Management	

**Source:** School Handbook of the University selected as a research site for the study (UKZN)

The current curriculum (of the selected university) does not have a dedicated/specific module on pervasive skills; these skills are taught in the syllabi of the different subject modules offered in the degree programme. Additionally, from the information provided above, it is clear that this professional degree is academically demanding, given the number of courses and modules and the nature of subjects, most of which are technical.

This observation is not unique to the local context. Even in first-world countries like the United States of America, accounting programmes remain heavily technical. The Pathways Commission's significant examination of accounting education in the United States affirmed the traditional accounting curriculum's emphasis on technical proficiency (Behn et al., 2012). McGuigan and Kern (2013), who also acknowledge the deficiency in pervasive skill

development, assert that technical content takes priority over other essential graduate skills like critical thinking in accounting programmes.

As some accounting programmes are still said to focus on the memorisation of rules and the mastery of Generally Accepted Accounting Principles, accounting, and auditing standards despite the call to change for an added focus on pervasive skills to help students develop and exercise good judgment, a necessary skill in the present times (Cunningham and Anderson, 2005), this issue remains a challenge. Several scholars have criticized the technical nature of accounting courses in accounting programmes (Dellaportas, 2015; Low et al., 2013; Mayer et al., 2005). Accounting courses primarily focus on objective and unbiased reporting of financial information in general, implying that such an emphasis becomes less concerned with the broader implications of accounting practices on human values, resulting in accounting students viewing accounting as an economic issue rather than a moral issue (Mayer et al., 2005).

Also criticising the technical focus in accounting programmes, Low et al. (2013) point out that the technical orientation of the accounting curriculum limits the scope for the development of pervasive skills. Supporting this view, AL Mallak (2018) revealed that the technical nature of the accounting curriculum does not leave much room for developing pervasive skills. Opponents of the technical and mostly rules-based focus in accounting programmes maintain that when the focus in accounting programmes is technical and mainly emphasizes "hard rules," this results in various issues (Dellaportas, 2015). Firstly, the students are indoctrinated with accounting principles, rules, and procedures that instil a conformist mindset in students and may lead to students who are unable to develop principle-based thinking (Dellaportas et al., 2006).

Some scholars argue that accounting students must recognize that people have various attitudes and assumptions and will account for things (financial transactions) in different ways, according to Dellaportas (2015), who also warns against putting too much emphasis on technical knowledge. Rather than relying on compliance to support accounting policy decisions, they must be encouraged to question how accounting measurements and treatments may affect other parties.

However, another angle on this debate suggests that drifting away from the technical content to focus more on pervasive skills may also be concerning to academics in the accounting

programmes. Some academics feel concerned about focusing on the pervasive skills as they are concerned about possibly neglecting the technical accounting knowledge (Kern, 2002). On the other hand, the inclusion of non-technical skills in an accounting curriculum raises concerns about possibly expanding an already academically demanding (Paisey and Paisey, 2007) and crowded course content (Anthony, 2014) accounting curriculum. The prioritisation of technical skills over pervasive skills in accounting degrees could stem from the reason provided by (Warwick and Howard, 2015:166), who state:

*“Soft skills, on the other hand, are viewed as rather more nebulous and less ‘academic’ and so are often placed together within a ‘skills development’ module or are left to be developed by the individual student as they progress through the course – almost a process of ‘skills osmosis.’ Yet these skills are important and certainly require planning and careful placement within the curriculum”.*

Indeed, academics are expected to prioritise and teach students the technical content in a way that facilitates the development of skills such as critical thinking. Some scholars believe that this could be achieved by not giving students simple problems with one possible solution, but those that compel them to apply their minds as such examples mirror what they are likely to face in real-life, complex professional work environments (Cunningham and Anderson, 2005).

#### 5.6.7 Heavy student academic workloads:

According to the literature review, accounting education plays an unquestionable role in pervasive skill development. However, it also appears that this function is hampered/ restricted by various constraints, some of which may not be totally managed by the accounting academic programme itself. Such barriers may arise due to factors and conditions outside of the classroom. The high academic workload is one of these barriers.

Globally, Bachelor of Commerce: Accounting is a degree many know to be academically challenging (Velasco, 2019). This degree requires a student to work hard and to dedicate most of their time to studying (Fouché, 2017). For one thing, the call for a four-year B.Com degree was an indication that students may be overloaded in a traditional three-year programme. In fact, Lubbe (2017) revealed that an average student takes four years or more to complete the degree, which is traditionally a three-year qualification, with some students dropping out of the degree programme. Also, due to the heavy academic load of the Bachelor of Commerce:

Accounting degree, a possibility exists that some students may be experiencing high levels of academic stress, which may also have a negative influence on the academic performance and well-being of the students (Fouché, 2017; Siraj et al., 2014; Veena and Shastri, 2016).

In light of this discussion, it would appear that adding to the already demanding accounting curricula may be detrimental to student achievement, another negative to avoid. Due to the requirements of professional bodies and changes in technical standards, academics have had to increase the number of technical topics as well as the depth within which the technical topics are covered and are now expected to pay attention to pervasive skills development, which was not traditionally given attention in accounting programmes (Kermis and Kermis, 2010). These interventions are geared towards producing chartered accountants with broader skill sets that will enable them to produce work of a good standard and thus lead to their professional success (Crawford et al., 2011; Papadopoulos, 2010).

Moreover, some academics believe there is not enough time to focus on pervasive skills in an already demanding accounting curriculum (Milner and Hills, 2008). In fact, it has been said that the focus on pervasive skills has put a strain on an already ‘crowded’ accounting curriculum (De Lange et al., 2006). De Villiers (2010:10) shares the same view and points out that:

*“Despite an already full degree programme and numerous other internal challenges, the faculty will need to find innovative ways to deliver on the demands of the stakeholders if they wish to remain relevant and competitive.”*

Indeed, prioritizing and integrating pervasive skills into an already overburdened accounting degree curriculum is challenging since it necessitates additional teaching time, enhancing current course content, and extending instructional time to accommodate pervasive skills (Jackling and De Lange, 2009). Not to mention that some academics believe that the focus on pervasive skills results in a diluted accounting programme, resulting in a decreased rigour in terms of technical skills, and this is one of the main reasons they feel pervasive skills should be given limited attention (Jones, 2010).

Some scholars also contend that the academic programme should not be responsible for embedding pervasive skills in accounting students as this programme is mainly responsible for instilling technical skills. Indeed, the academic programme is overcrowded given that some students face academic stress (Fouché, 2017); hence a solution to this challenge must be found soon. Suggesting a solution, Jackling and De Lange (2009) propose that in the long run,

transferring some of the technical content from university accounting degrees to the training programme could provide a solution to this crisis.

Despite these challenges, Andrews and Higgins (2008) argue that business (accounting) schools have to focus on pervasive skills, graduate employability, work readiness, and the mobility of its product – the students, despite the increase in accounting student numbers. Moreover, some would argue that pervasive skills development takes place over time, with constant training and practice (Daniels, 2011). Given the time constraints and the demanding accounting curriculum, it may prove impossible for the academic programme to take full responsibility for this task.

#### 5.6.8 Academic staff workloads

In the local context, academics have been concerned about their ever-increasing workloads (Barkhuizen and Rothmann, 2008; Bezuidenhout, 2015). The same concerns have been noted even in other countries. For instance, according to Steenkamp (2020), workload pressures have increased at Australian institutions, and academics have been pressured to perform acts connected to a 'student-as-customer' paradigm, which has had a negative impact on their well-being and work performance. It would seem that by carefully considering teaching and assessment approaches, academics in accounting can instil the much-desired skills in their accounting students. However, this adds to the already demanding workload academics have to manage. Moreover, not only do accounting academics need to think of strategies to teach pervasive skills, but they also need to explore how these skills may be assessed. In as much as that may done is perplexing to some academics, some scholars argue that pervasive skills ought to be assessed during undergraduate studies before aspirant accountants sit for their qualifying examinations (Gammie et al., 2010).

Furthermore, the demanding accounting curriculum, large class sizes, and increased student: academic ratios have increased the workload. Accounting academics, like most in other fields, in addition to teaching, have to focus on research output demands for academic rankings (Helliard, 2013), given that research productivity is highly desired by higher education institutions (Bui and Porter, 2010). With this in mind, (Mastracchio Jr, 2017:32) claims that university accounting education is frequently condemned as being "bloated, inefficient, concerned with research, and inadequate in preparing students for the workforce." This

assertion could be true to a considerable extent, as many universities invest significant time and resources in achieving a high volume of research and publications to boost their academic rankings. To this end, academics may be faced with a time-consuming exercise of exploring various teaching methods, approaches, and teaching tools that are likely to promote the development of pervasive skills when designing their lectures and the curriculum. Also, what may be challenging to academics in accounting is how to alter what is taught and how such is taught to enhance pervasive skills development (Tempone and Martin, 2003).

Despite all the challenges, Helliard et al. (2009) assert that academics in accounting should realise that pervasive skills are just as critical as technical skills. Mohamed and Lashine (2003) share a similar view and point out that academics may not be able to fully prepare accounting students with regard to the necessary pervasive skills, but acknowledge that academics do enhance the chance of acquiring pervasive skills by accounting students.

Another contribution to the debate on teaching pervasive skills is presented in a study conducted in an Australian setting, focusing on the challenges facing academics in teaching pervasive skills to students. The study attributed the challenges to confusion about the conceptualisation of the term ‘pervasive skills,’ failure to understand the contextual nature of pervasive skills, a general lack of specific attention to pervasive skills by higher education, the measurability and assessment of the skills, and insufficient training of the academics who are expected to instil these critical skills (Goodwin et al., 2012). The same sentiments are shared and captured as:

*“We need to see skills development not as something that can be ignored in the accounting curriculum or seen as a necessary evil forced on us by educational bureaucracy and the profession but as an essential element of the path to providing a successful accounting education experience” (Stoner and Milner, 2010:136).*

A study by Blanthorne et al. (2005) painted a picture that many stakeholders in accounting may find disturbing. Their study revealed that accounting academics were discouraged by employers’ dissatisfaction with the soft skills levels of accounting graduates. They further indicated that some academics have now gone back to re-emphasizing technical knowledge over pervasive skills as their experience has indicated that lecture time is better utilised if geared towards mastering technical knowledge. Despite all the challenges, it may still be

possible that the inclusion of a 'stand-alone' pervasive skills module in the Bachelor of Commerce (Board) degree would benefit students and academics.

Taking a different view on the matter, employers of accounting graduates in Spain and the U.K identified one of the challenges they argued to be a barrier to the development of pervasive skills of accounting students is the attitudes/abilities of accounting academics (Hassall et al., 2005).

Despite the challenges, Hesketh (2010) suggests that academics in the accounting field must find ways of teaching and assessing accounting students to prepare them for professional examinations and the workplace.

#### 5.6.9 Teaching methods and strategies

It has been argued that accounting academics adopt various teaching methods in an attempt to address the development of pervasive skills by accounting students before entering the training programme (Keevy, 2015; Viviers, 2016a). Indeed, given the rapidly changing business environment, universities are compelled to change the process of teaching students (Bratianu and Vatamanescu, 2017). With this in mind, many universities across the globe have adapted their teaching pedagogies to include more student-centred approaches (Barrie et al., 2009; Stoner and Milner, 2010). This move was necessary because the conventional pedagogy used in accounting courses generally tends to promote the acquisition of technical knowledge than pervasive skills (Penn et al., 2016).

A study conducted by Virtanen and Tynjälä (2018) revealed that conventional teaching and learning methods adopted at university, such as lecturing and working individually, were negatively connected to the acquisition of pervasive skills. As a matter of fact, educational strategies that require students to memorize accounting procedures and regulations fail to develop critical thinking and problem-solving skills. Also, lectures were shown to be negatively related to the ability to acquire creativity, reading was found to be negatively related to the ability to function in novel settings and problem-solving skills, and working alone was found to be negatively associated with the ability to learn creativity.

The issue of how to assist accounting students in developing the essential pervasive skills is not a new one. Some universities in the United States, like Brigham Young University, changed

the content of their accounting courses as early as 1994 to incorporate a stronger emphasis on pervasive skills (Albrecht et al., 1994). The change was made to assist students in developing the pervasive skills listed below:

**Table 5.2: Brigham Young University, change in the content of their accounting courses as early as 1994 to incorporate a stronger emphasis on pervasive skills**

<ul style="list-style-type: none"><li><input type="checkbox"/> Written communication Ability to present views in writing</li><li><input type="checkbox"/> Oral communication Oral communication ability to communicate one's point of view Effective listening ability</li><li><input type="checkbox"/> Group work and people skills Understanding of group dynamics and the ability to work effectively with others Conflict resolution ability Ability to plan ahead of time and delegate responsibilities</li><li><input type="checkbox"/> Critical thinking Ability to solve a variety of problems, both structured and unstructured Reading, critiquing, and judging the merit of written work</li><li><input type="checkbox"/> Working under pressure Ability to work under pressure and meet deadlines effectively.</li></ul>
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**Source:** Albrecht et al., (1994:401)

On the other hand, Ballantine and McCourt Larres (2009) contend that the learning strategy/approach that provides accounting students with a fair chance of acquiring the generic skills that enable them to interact more commendably with others would also encourage their lifelong learning. Such a learning strategy/approach would also help them deal with the challenges introduced by the complex nature of business today, which is cooperative learning. Indeed, collaboration rather than solitary learning increases the acquisition of such skills (De La Harpe et al., 2000). That is to say, students can address pervasive skills demands such as communication skills and professional ethics through a service-learning approach (Calvert and Kurji, 2012).

Even though that may be the case, Singh and Gera (2015) point out that the question that academics seem to be battling with in trying to get students to learn by doing is how to change focus to learning pervasive skills from learning technical knowledge. As a result, most academics believe that the way accounting is taught should promote the development of the much-required

pervasive skills, including communication skills (Zraa et al., 2011). In fact, in an attempt to help students develop these much-needed skills, some universities have opted for discipline-independent or stand-alone modules specifically designed to assist students in developing pervasive skills (Barrie et al., 2009). On the other hand, instead of having stand-alone modules tailor-made for pervasive skills acquisition, some universities opt to embed these skills into the various subjects in the curriculum (Nghia, 2017).

For one thing, academics in the accounting discipline, in addition to teaching high numbers of students, are meant to teach using approaches and strategies that promote the development of pervasive skills (Star and Hammer, 2008; Viviers, 2016b). Riccio and Sakata (2005) argue that some teaching strategies/approaches may influence the development of pervasive skills such as responsibility and communication skills. Such approaches may include group work, class or group assignments/presentations (Strauss-Keevy, 2012); interactive case studies, field trips (Kakavelakis and Edwards, 2012); cooperative learning (Ballantine and Larres, 2007), role-play/games (Viviers et al., 2016) and problem-based learning activities (Kermis and Kermis, 2010) and simulations. Simulations can also include components like dealing with time constraints and deadlines, communicating with clients, and managing other real-life scenarios (Culpin and Scott, 2012). All in all, with this view in mind, it would seem that teaching for comprehension, active learning, a variety of evaluation methods that involve the activation of the required capabilities, and working together were the aspects of the learning environment that notably enhanced students' generic skills (Kember, 2009).

In the local context, Strauss-Keevy (2012), through a quantitative study, focused on the delivery methods that ought to result in the acquisition and assessment of the SAICA pervasive skills and looked into the barriers to developing these skills. Strauss-Keevy (2012) identified the case-study teaching method as effective in developing pervasive skills of aspirant chartered accountants. Healy and McCutcheon (2010) also shared the same view that case studies expose accounting students to current issues in accounting and how these issues may be solved, thus promoting the development of pervasive skills such as critical thinking. Using case studies in teaching accounting students is said to introduce them to unstructured problems and compels them to use higher-order thinking, thus enhancing their cognitive and critical thinking skills that facilitate the exercise of judgment (Cunningham and Anderson, 2005). Moreover, case studies have also been argued to bridge the gap between professional practice and the academic

programme in terms of skills (Cullen\* et al., 2004) and are perceived to enhance critical analysis and evaluation of information (Meyer, 2021).

To put it differently, it seems that one way to develop this skill in accounting is to have students assess new business problems and then offer business solutions. Accounting students can demonstrate their ability to assess and connect academic and practical information in this way (Jones, 2010). However, it has been pointed out that the level of detail and sophistication offered in cases studied in lectures and the ways in which students participate may differ (Healy and McCutcheon, 2010). Together with that, Cunningham and Anderson (2005) pointed out that usually, in accounting classes, students are presented with problems that have just one acceptable answer, which does not help them develop critical thinking skills. Of course, this is not ideal as it does not reflect the realities that students will confront once they enter professional employment.

However, another angle on this debate suggests that the acquisition of pervasive skills is not dependent on a single teaching approach or pedagogical practice but learning these skills necessitates the employment of various teaching approaches and pedagogical approaches (Virtanen and Tynjälä, 2018). From this discussion, it would seem that teaching pervasive skills is not an easy task and involves a great deal of planning on the academic side. This is a view held by some scholars, such as Gibb (2014), who contends that pervasive skills are hard to teach and even more challenging to assess in the classroom.

#### 5.6.8.1 The challenges associated with the teaching of pervasive skills

It is generally understood that teaching and assessing technical accounting (hard) skills is less challenging to academics than teaching pervasive skills because of the nature of hard skills. Hard accounting skills are relatively easy to measure/quantify; various teaching and assessment methods are designed specifically for determining a student's competence in a technical area. On the other hand, pervasive skills are not easily quantifiable and assessed; this is one factor that may present a challenge to both academics and students. Pervasive skills, unlike technical discipline knowledge, which is content-based, are rarely explicitly assessed, and their development may at times be independent of the formal curriculum (Chamorro-Premuzic et al., 2010).

Another challenge with teaching and assessing pervasive skills is the challenge related to measuring the impact of academic programmes on soft skills development (Holtom and

Bowen, 2007). Despite the nature of pervasive skills, many accounting academic programmes accept the responsibility for developing pervasive skills by accounting students as theirs, but the challenge remains on how to incorporate and assess these skills (Tan and Fawzi, 2017). Furthermore, in a study conducted by Low et al. (2003), accounting students felt that lecturers in accounting could play a critical role in the development of their pervasive skills by occasionally talking about the importance of these skills and having development workshops.

The diversity of university students, apart from differences in age, gender, student background, intentions, and prior accounting knowledge, has been shown in prior studies as a challenge (Tan and Laswad, 2018). Unfortunately, the diversity of students, particularly their different backgrounds, leads to a complex learning environment (Levant et al., 2016). Indeed, the rise of student mobility to access higher education and cultural differences are current challenges in today's higher education, resulting in higher student diversity (Iatagan, 2015). This variability necessitates a strong focus on students and the biosocial circumstances of higher education (Mulisa, 2019).

In essence, academics in the academic programme ought to embrace this diversity and accept the responsibility to create a conducive learning environment for developing pervasive skills despite the challenges (Low et al., 2013; Low et al., 2008; Strauss-Keevey, 2014). In handling the diversity of students, academics in the academic programme have to consider the cultural norms and standards, language proficiencies, gender (Alleyne et al., 2013), ethnicity, and the varying linguistic abilities of the students, which may be challenging in a class with a high number of students. In order to create such a learning environment, academics and the students should have the right attitude, skills, and knowledge on how to create and appreciate this environment and also a broad understanding of the diverse student population.

#### 5.6.10 Mentoring and coaching opportunities

Research studies often propose that businesses or employers should play a more active role in pervasive skills development by forging meaningful relationships with schools and universities, offering mentorship programmes to the youth, and helping students feel comfortable interacting with senior individuals in a professional setting. This view is held mainly by those who argue that some pervasive skills are developed best outside the classroom through other means such as mentoring.

Many people have different ideas about what mentoring and coaching are and what these include. Similarly, multiple parties may be selected as mentors, and the mentoring and coaching processes employ various strategies, approaches, and procedures, which are inclined to vary depending on the desired outcome. With specific reference to the understanding of what mentoring is, this study subscribes to a definition of mentoring as “a dynamic, shared personal connection in which a more experienced person acts as an adviser, guide, and role model for a less experienced person.” (Steinmann, 2006:3). Based on the adopted definition of mentoring, it may be assumed that mentoring programmes can help students form critical academic, professional, personal, and community-based networks on and off-campus, resulting in desired outcomes in most instances. Also, because mentoring relationships can last a lifetime or be limited to a specific period, such as in higher education or the workplace (Steinmann, 2006), the benefits can be long-term in nature.

Concerning the different strategies and approaches, mentorship relationships could be formal, where the process is documented and formal structures set up to manage the process, and others may be informal relationships frequently developed spontaneously due to mutual interests and personal and professional objectives (Nottingham et al., 2017). Informal mentoring could be provided through role models. Campbell (2010) emphasises the importance of role models for students, such as parents or academics (among others), because such support systems facilitate the development of pervasive skills. Likewise, Topping (2005) suggests that role modelling and mentoring are two of the most effective techniques for assisting students in developing personal attributes and skills.

Langhout et al. (2004) conducted a study to explore the benefits of mentoring to the youth. Their investigations revealed four mentoring approaches, each depending on the mentor and mentee's nature of support, configuration, and participation in the mentoring programme. The first is moderate mentors (this entails conditional support and moderate levels of structure and activity). The second strategy is unconditionally supportive mentors (this involves the highest level of support with moderate levels of structure and activity). The third strategy is active mentors (which comprises the highest level of activity paired with the highest level of structure and activity), and the fourth strategy is low-key mentors (which entails the lowest level of activity combined with the lowest level of structure and activity). Their results also showed that the moderate mentoring method yielded the most significant benefits to mentees.

Lyons and Pastore (2016) argue that mentoring and coaching are two approaches that can help with career growth and pervasive skills training. Such an argument shows how mentoring interventions can hone the mentees' skills—pointing out the benefits of mentoring and coaching, Flaming and Mosca (2019) state that individuals might see alternate behaviours to what they are now doing with the help of coaching or mentoring, which in general involves aspects such as the mentor providing feedback, assisting in goal-setting by the mentee, and offering instructions. Moreover, people learn more quickly from experiences gained while being coached or mentored and are more likely to ask for assistance during the informal coaching period (Grote, 2016), hence the need for coaching and mentoring to be employed frequently.

It is argued that those accounting students who have an opportunity to interact closely with already qualified accountants may have a favourable view of the profession and the skills required to succeed in the profession (Albretch and Sack, 2000). Indeed, one of the advantages of mentoring is that accounting graduates get to grow from seeing than just being offered information. This approach which means volunteering information, stepping back, and being accessible for support (Flaming and Mosca, 2019), should assist accounting students in many ways. Bandura (2000) also emphasizes the necessity of mentoring and coaching, stating that people who intend to learn new skills and competencies need to be directed and encouraged so that they learn from their failures. With specific reference to pervasive skills, mentoring, as a result of the interaction between mentors and mentees, may help enhance communication skills (Dawson, 2014). Notably, mentors are more likely to demonstrate problem-solving skills and constructive communication with others, which helps mentees develop their feeling of self-efficacy over time (Bandura, 1977). Also building on this idea, the IFAC further adds that activities such as coaching, observing, networking, self-directedness, self-reflection, and unstructured information acquisition can help acquire competence in pervasive skills and qualities (IFAC, 2017a).

#### 5.6.11 The Y and Z- generation of aspirant accountants

As of today, the generation that has essentially just entered the workplace (with some still preparing to enter) are the Millennials or the Gen-Y (Luscombe et al., 2013), with the Z-

Generation (Z-Gen/ GenZers) arriving in the workplace or finalising their preparation for their careers through education and training. These generations, specifically the Z-Generation, are the future of business (Arar et al., 2015). There are many names given to the Y-Generation, including 'millennials,' 'Gen Y,' 'internet or dot.com generation,' 'generation next,' 'echo boomers,' 'generation net,' and many others (Broadbridge et al., 2007, Connor et al., 2008). On the other hand, the Z-Gen are said to be innovative, efficient technology users, multitaskers, and individualistic young people who appreciate challenges, specialized work, and who have the ability to think globally (Arar and Öneren, 2018).

It has been said that the generation in which we were born and brought up significantly impacts our lives. According to Campbell et al. (2015), a generation is a collection of individuals born around the same time who share a similar cultural setting and, as a result, establish the culture. On the other hand, an era is a period of socioeconomic progress defined by a generation. Moreover, it is generally believed that the period of our birth and the events that occur in our lives form us and our culture, and they appear to create a strong tie between members of a generation. Given that the great majority of the student participants in this study are from the Z-Generation, the literature review will primarily focus on this generation.

The GenZers, are often referred to as the digital natives, which suggests that they were brought up aware and informed about technology, with many being technology proficient (Seemiller and Grace, 2016). That is to say that their ability to use technology and access a vast amount of online content available on the internet is generally decent. GenZers, in addition to being perceived as technology addicts, have a command for internet technology, playing internet games and sharing information online. Moreover, this generation is also known for being impatient, not liking teamwork, being result-oriented, and having a short attention span (Magano et al., 2020).

The characteristics of the Z-Generation often translate to different educational demands and expectations (Seemiller and Grace, 2016). For instance, it has been suggested that Gen Z students are more interested in their classmates' experiences and prefer to receive some of their knowledge from YouTube (Schwieger and Ladwig, 2018). By the same token, these characteristics may pose a challenge in the professional workspace such as accounting because of the nature of accounting work that would be performed by this cohort, who may be currently employed as trainee accountants. Due to the nature of the work undertaken by trainee

accountants during their professional training (articles), which is usually undertaken in teams, it is without a doubt that working collaboratively within the team is essential. Also pointing out the importance of teamwork in accounting, Gardner (2015) argues that entry-level accountants who seem to prefer working alone instead of in teams are not prepared for the ever-changing professional work environment.

It has been argued that teaching pervasive skills to the ever-multi-tasking GenY and Z-Generations of accounting students may also prove challenging. According to Cairney (2010), South African accounting academics believe that undergraduate and postgraduate students place a strong emphasis on assessment, only caring about "what they need to know." Given that, Tran (2013) points out that education is about more than just passing exams; it is also about exploring and developing personal skills for career and life success.

In as much as the technological growth of this generation is appreciated in the workplace, a general lack in pervasive skills and professionalism is noted in this cohort (Kermis and Kermis, 2010). Employers also have to deal with this young generation of accounting students/graduates who possess different skills, attitudes, and drive. Kermis and Kermis (2010) concur and state that one of the challenges with changing accounting education in order for it to be more reflective of today's economic realities is the disconnect between today's managers (employers) and the propensities of their new employees, 'The Millennials.' This disconnect is attributed to the differences in attitudes.

Many of these students are said to prefer communicating through social network platforms and spend hours on end on their smart gadgets, thus limiting physical interactions. Also, this generation of future employees make friends on social media sites like Facebook, MySpace, and Second Life; they text more than they converse on the phone; and they Twitter all night, often falling asleep with their smartphones vibrating by their bedside (Kirschner and Karpinski, 2010). However, this generation's excessive use of technology and social media spaces has diminished the value of social interactions, which has led to poor development of pervasive skills, especially communication skills. Coupled with that, the language used in the social spaces has compromised the ability of many students to develop critical written and oral communication skills. Indeed, the emergence and rapid growth of social media networks as a popular activity have resulted in the creation of a different language system required for

effective communication (Zourou, 2012). Other researchers hold contrasting views, however, and reveal a positive correlation between social media usage and students' communication skills and suggest that students learn communication skills through social media (Oladeji, 2019).

#### 5.6.12 Attitudes, perceptions, and awareness: significance of pervasive skills

Values, attitudes, and personality have also been determined as factors that affect human behaviour/actions (Ajzen and Fishbein, 2005). Attitudes are essential aspects of human existence that influence an individual's decision on whether or not to engage in a behaviour or activity (Silverman and Subramaniam, 1999). Katz (1960) argues that knowing a person's attitudes allow people to predict their behaviour. Attitude development starts at an early age and is formed through beliefs about an aspect, object, or subject. The salient beliefs about aspects, objects, or subjects may either be positive or negative, e.g., a student may have a strong belief that pervasive skills will improve his/her employment prospect. Such a belief will determine the student's attitude towards pervasive skills, in this example, in a positive way. Attitudes, therefore, are feelings towards an object or subject, whether favourable or unfavourable, good or bad (Ajzen and Fishbein, 2005). In general, behavioural responses infer attitudes, whether verbal or non-verbal. Verbal responses may include one's verbal expression of feelings about something, and non-verbal responses include perceptual and physiological reactions and motor responses (Silverman and Subramaniam, 1999).

The attitude of accounting students towards the significance of pervasive skills in accounting has surfaced in several academic debates as a possible barrier to their acquisition of pervasive skills (Bui and Porter, 2010; AL Mallak, 2018; Hancock et al., 2009). As an illustration, Ameen et al. (2010) revealed that even though employers value communication skills, students specializing in accounting do not place a high value on these skills. Likewise, their attitudes towards how pervasive skills are developed have been revealed in some studies. According to Hancock et al. (2009), the perceptions of generic skills acquisition are issues that have a definite effect on the success of university programmes in cultivating skill development and excellent future job outcomes for graduates. Other research studies have supported this view that students' perceptions of the significance of particular skill sets in the workplace are connected to their ability to acquire those skills within that tertiary degree (Rainsbury et al., 2002). On the contrary, the findings of Al-Mallak (2018) established that students did not perceive that their conceptions of the value of pervasive skills hampered their ability to acquire them. It has

also been revealed that some accounting students seem to have been drawn by a misinformed belief that the accounting profession requires minor pervasive skills, particularly communication skills, a factor that can result in a great deal of frustration for the graduates in the future (Arquero et al., 2007).

Fresh graduates appear to place a higher value on technical abilities than pervasive skills (Klibi and Oussii, 2013). Similarly, in her study, Gracia (2010) showed that some accounting students believed that they just needed to be good with numbers to thrive in the accounting profession and that they need not focus on those around them. This particular view could be unknowingly promoted by some school teachers who, as part of career guidance, view an accounting career as an uninteresting profession that requires minor interactions with others and thus describe it as an unsatisfying career (Wells and Fieger, 2006).

Also pointing out a similar observation, Bratianu and Vatamanescu (2017) argue that the challenge of instilling pervasive skills seems to be related to the students rather than academics, as students are expected to work harder in developing these skills and should assume responsibility for acquiring these in order to be relevant in the ever-changing business environment. Likewise, in a study conducted by Parvaiz et al. (2017) on the factors that hindered the acquisition of pervasive skills by students, it was revealed that the first restrictive factor in a skills development process, according to academics, is "students' non-serious attitude about learning. Also revealing the attitudes of accounting students, Warnock (1997) revealed that undergraduate students believed that if they were successful in their university studies, they would obtain generic and technical skills. Another critical point, students are said to describe their learning experiences in terms of formal or disciplinary courses rather than the development of soft skills (Chamorro-Premuzic et al., 2010).

In terms of the awareness of accounting students about the concept of pervasive skills and the importance of these skills for their careers, it has been revealed that graduates and students in accounting frequently do not comprehend what pervasive skills are or which pervasive skills they need to acquire (Barrie, 2006). As an illustration, a study by Klibi and Oussii (2013) revealed that accounting students are unaware of the degree to which employers need pervasive skills in today's global business context and that they ranked technical skills as more important for entry-level employment in the accounting field. In contrast, a study by Viviers (2016) investigated the level of awareness of accounting students about the perceived importance of pervasive skills and their level of exposure to the SAICA's required pervasive skills and

concluded that students are aware of the importance of the pervasive skills in the field and perceived pervasive skills as necessary. However, the study by Viviers (2016) did not specify whether or not the students believed the pervasive skills to be essential for entry-level employment in accounting.

The literature review above suggests that accounting students' attitudes and perceptions about the importance of pervasive skills could be barriers to their acquisition of these critical skills to paint a worrisome picture. This is given that when a graduate's attitudes, abilities, traits, and behaviours are demonstrated collectively, he or she can develop professional credibility with colleagues and clients and advance in their careers (Atanasovski et al., 2018).

#### 5.6.13 Personality and traits: accountants and prospective accountants

As pointed out before, students' perceptions about the importance of pervasive skills such as communication skills in the accounting profession may indeed be a barrier to their acquisition of these skills (Stone et al., 2013). Although this may be true, it remains vital to understand what contributes to such attitudes and perceptions. Albrecht and Sack (2000) fill that gap by pointing out that one of the possible reasons why such attitudes and perceptions exist could be as a result of the stereotype portrayal of accountants as anti-social and reserved, as seen on television and other media platforms, suggesting that personalities play a role in this issue. Correspondingly, personality inclinations have been argued to be a crucial factor determining a person's skills, in the sense that a person's personality preferences are likely to incline them to specific competencies (Wheeler et al., 2004).

Accountants are frequently stereotyped as dull, monotonous, conservative, cautious, and engaged in a tiresome and uninteresting job in movies, humour, and other forms of social media (Dimnik and Felton, 2006; Friedman and Lyne, 2001; Jeacle, 2008). Some argue that one of the profession's challenges is that it is losing some of its best potential entrants to other, more exciting professions as a result of the "beancounter" stereotype and that this has also created biases in the profession's appeal, making the "beancounter" stereotype real by virtue of being expected (Andon et al., 2010). Given this, some scholars believe people who are drawn to the accounting profession are those who think they fit the profile of the stereotype accountant (Friedman and Lyne, 2001; Jeacle, 2008). Then again, this incorrect view about accountants may be perpetuated by the fact that accounting students' personality attributes continue to fit with the traditional notion of accountants as technical specialists (Andon et al., 2010). Indeed

it has been suggested that apprehension about writing and oral communication, as well as a financial rewards, are the main factors which influence a student's decision to pursue an accounting degree (Fallatah and Talha, 2009).

The discussion above is concerning given that certain personality traits have been argued to foster the development of specific skills and competencies (Barrick et al., 2001). Indeed, personality, rather than teaching or academic instruction, is said to influence trait-like constructs such as emotional intelligence, drive, and motivation (Chamorro-Premuzic et al., 2007). For these reasons, Stone et al. (2013) suggest that accounting professional bodies have an essential role in convincing accounting students of the importance of pervasive skills in this profession. Accordingly, some argue that professional bodies ought to develop marketing strategies to alert accounting students of the importance of pervasive skills, including communication skills (Ameen et al., 2010), possibly shifting stereotypes about accountants as professionals who only work with numbers. This task could be done through guest lectures presented to accounting students and other marketing campaigns.

With this intention, accounting firms' recruitment articles and professional accounting bodies' branding campaigns have attempted to reimagine accountants as more "colourful": young, trendy, and interesting individuals with inspiring career roles who are expected to consolidate a wide variety of skills in addition to technical accounting expertise (Jeacle, 2008). While that may be good, another issue that might be overlooked is that even if the pervasive skills were taught to students at university, that does not guarantee that the students would be able to apply these skills in the workplace; therefore, a gap still exists (Jackson, 2013).

#### 5.6.14 Students' backgrounds

Understanding human behaviour is essential for understanding how students' learning can take place. External environmental factors such as social and cultural norms, and political and economic factors may influence an individual's behaviour. In general, human beings have been said to have varied developmental trajectories in terms of maintaining, developing, and deteriorating significant characteristics and behaviours over time and become more varied with time since 'each human is a universe of one' (Smith and DeFrates-Densch, 2008). It would seem that young adult distinctiveness is attributable to their different life experiences, responsibilities, educational and social backgrounds, family and contextual resources, and

motivators. This view is also consistent with that purported by the Bioecological Theory of human development of Urie Bronfenbrenner. Because of these elements and a different biological makeup that interacts with environmental interaction, activities, opportunities, interests, and development will differ from person to person (Bronfenbrenner and Morris, 2006).

Of the environmental factors, some scholars believe that one's culture is critical in development (Sternberg, 2004). In fact, Markus and Kitayama (2010:423) argue that "culture is not separate from the individual; it is a product of human activity." This suggests that the influences of culture in pervasive skills development cannot be ignored as one's culture cannot be separated from the person, given that many cultural legacies have become ingrained in daily life. Another factor in the microsystem that was identified as a factor that may support or hinder the development of pervasive skills is the family's role (Ha et al., 2012). The same factor was reported by AL Mallak (2018), who revealed that accounting students felt that family culture and a lack of family support are barriers to their development of pervasive skills.

The fact that accounting students currently registered in accounting degree programmes come from various backgrounds is likely to present issues to accounting educators when it comes to developing pervasive skills, as the students may be at various levels in terms of these skills due to their backgrounds. Coupled with that, Hesketh (2011) states that accounting education in South Africa faces challenges and contradictory demands from various stakeholders, including the SAICA, other accounting professional bodies, graduate employers, and the Department of Education. Accordingly, Ernst and Young, one of the leading accounting firms and employers of accounting graduates worldwide, acknowledged that the Higher Education sector is currently undergoing transformation because of commercialisation, internationalisation, digitalisation, and democratisation, and as a result, is faced with a diverse student body with varying abilities and skills (Ernst and Young, 2012). Indeed, universities have seen considerable growth in diverse student populations as they have been more internationalized (Kosmützky and Putty, 2016). Also, the recent changes in the higher education sector, which include widening university access or 'massification' of higher education, have resulted in a complex learning environment (Levant et al., 2016) in challenging learning environments. However, if the widened access that has resulted in increased inclusivity benefits all stakeholders, universities should have models or systems to manage the change. With this in mind, Scharmer (2009) asserts that transforming the system to accommodate diversity

necessitates the creation of new perspectives, infrastructures, orientations, and economic models.

More specifically, when exploring the interventions for pervasive skills development across the accounting professional degree experience, proposed strategies should be considered bearing in mind the students' social contexts and varying backgrounds. This is certainly not an easy task, particularly for academics involved in the academic programme. One of the challenges that academics may face in this regard is finding teaching and learning approaches that will meet a diverse group of students with different strengths, preferences, and needs. On a more positive note, however, other scholars see diversity as something that can be beneficial to the students. For instance, interacting with people from other cultural backgrounds, according to Campbell (2010), increased the self-esteem of students who lacked confidence in their abilities. Along with Campbell (2010), diversity was also seen as a beneficial factor by Pascarella et al. (2001), who claimed that connecting with people from different backgrounds affects the development of pervasive skills such as critical thinking.

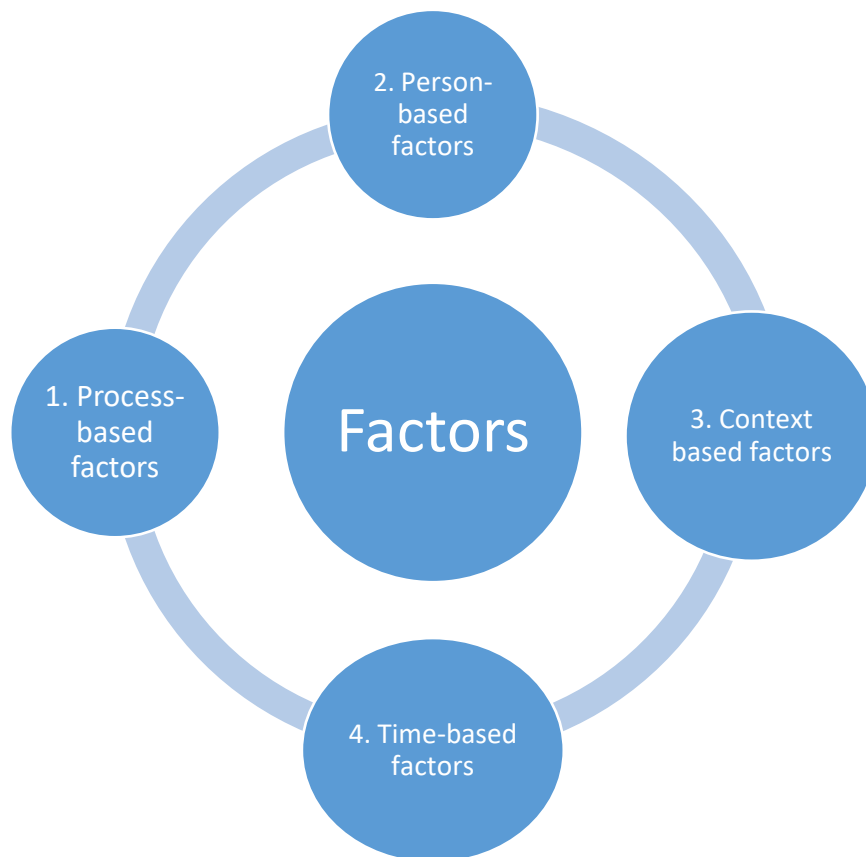
#### 5.6.15 The role, competence, and attitudes of academics for instilling pervasive skills

Some arguments about the students' development of pervasive skills relate to academics' role, competence, and attitudes concerning the responsibility for these skills. Some scholars have claimed that some academics may not be able to instil the necessary skills because they are not qualified to teach these (Hassall et al., 2005; Bui and Porter, 2010; Abayadeera and Watty, 2014). For instance, Abayadeera and Watty (2014) point out that some academics may lack confidence in their capacity to teach some generic abilities, which is commonly disregarded. Not to mention that building pervasive skills is a time-consuming and complicated exercise that necessitates expert knowledge (Stoner and Milner, 2010).

In terms of the attitude of academics about pervasive skills, Milner and Hill (2008) discovered that some accounting academics believed there is "no time" for skills development in the academic programme. In a like manner, some academics even argue that focusing on pervasive skills leads to a weakened accounting programme with less rigour in technical skills, which is why they believe pervasive skills should be given less priority (Jones, 2010). Also, a point often overlooked is that some academics may lack confidence in their ability to teach some generic skills (Abayadeera and Watty, 2014).



From the data analysis, four dominant, overarching main themes emerged, as shown in Figure 5.3 below. The key factors that emerged dominantly from the analysis of the factors that hinder or enable the development of pervasive skills can be classified into the following groups of factors:

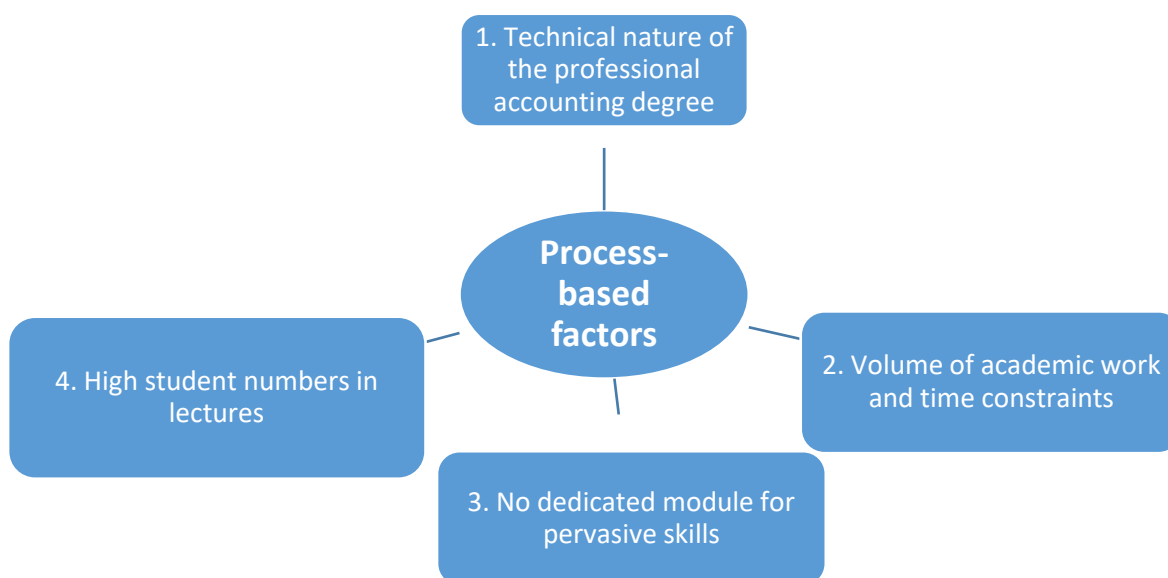


**Figure 5.3: Main themes**

**Source: Self-generated**

Various sub-themes were revealed from the overarching themes, and the discussion of these themes is according to Bronfenbrenner's Bioecological Theory (BBT). The discussion of the themes and their sub-themes follows next. Figure 5.4 below shows the first theme and its sub-themes.

## Main Theme One: Process-based factors



**Figure 5.4: Main theme 1 with sub-themes**

**Source: Self-generated**

The theme ‘Process-based factors’ was named according to the BBT. The data collected under this theme is organised into five sub-themes which will now be further explored.

### *Sub-theme 1*

#### **Technical nature of the professional accounting degree**

This theme emerged from the analysis of the responses of both groups of research participants. Respondents revealed that the accounting degree is still, to a large extent, technical orientated. The participants also felt that the technical focus of the degree limits the focus on pervasive skills in the academic programme, which could limit their development. The participants expressed the following views:

*Currently, our curriculum is mostly technical. In as much as we always try to ensure that we teach in a way that promotes the development of pervasive skills, there is no time to see to it that students have actually developed the necessary skills. With the syllabus that is technically intense and the volume of work we need to get through, it's challenging. (Academic, RR).*

Another academic participant highlighted her primary aim as an academic in the following quote:

*As academics, our responsibility is to provide them with technical skills. (Academic, LL).*

*But there's not a lot of practical exposure to those sorts of skills. (Academic, EE).*

While some academics acknowledged the importance of focusing on technical content, they explained that the application of technical knowledge also requires much attention. The following excerpt revealed this view:

*Well, in my opinion, the technical is good, but if you cannot apply that technical knowledge, then what is the point? You have to have the technical skills, but if you cannot use these skills to make decisions, or if you cannot solve problems, it's a problem. (Academic, FF).*

On a more positive note, some felt the move from technical to a more integrated approach is coming soon. This is captured in the quote below:

*I think with CA2025 SAICA is moving towards less numbers and a lot more integrated type of approach where for example, you express your views given the scenario and exams will mainly be scenario-based. (Academic, EE)*

### **Discussion of results: Technical nature of the professional accounting degree**

This study found that the current accounting curriculum, which is mainly technical, offers insufficient room for acquiring pervasive skills. This is to say that much focus is given to getting through the technical knowledge in most courses in the academic programme. This finding was not surprising given that the accounting curriculum remains largely technical even in international contexts. To point out, the Pathways Commission's comprehensive review of accounting education in the United States reaffirmed the traditional accounting curriculum's emphasis on technical proficiency, confirming that accounting programmes remain highly technical even globally (Behn et al., 2012). This suggests that the process followed in preparing aspirant accountants, which remains technically focused, limits their opportunities to develop skills such as oral communication skills. Moreover, the evidence suggested that the current

technical nature of the professional accounting degree did not seem to emphasize how essential these skills are in this field.

Based on the accounts given by the participants, the focus is mainly on acquiring technical knowledge, which is primarily rules-based and prescribed by the professional body. This finding lends support to the previous findings that revealed that the technical nature of the accounting curriculum leaves little room for the development of pervasive skills (AL Mallak, 2018). The technical nature of the accounting academic programme as a dynamic that emerged as a factor affecting the accounting students' development of pervasive skills also corroborates McGuigan and Kern's (2013) findings, which acknowledge a lack of pervasive skill development by the students and further explains that technical information takes precedence over other crucial graduate skills such as critical thinking. Although not surprising, this finding painted a concerning picture, especially given that employers and other stakeholders expect an added focus by the academic programme on pervasive skills. Other scholars have also observed this limitation and conclude that the rules-based approach focuses primarily on training technical problem-solvers, which results in accounting students being encoded with accounting standards, policies, rules, and procedures, which may result in technical proficiency hampering the development of pervasive skills, critical thinking in particular (Dellaportas, 2015).

From the findings, it seemed that the current degree, which on its own is heavy for the accounting students, given the limited time within which the content, which involves mastering many accounting-related standards and technical rules and calculations, has to be completed, leaving minimal time to focus on pervasive skills and attributes. Once again, the same sentiments are shared that the accounting curriculum is narrow due to its over-emphasis on technical content (Wilson, 2011). Consequently, given the technical focus, many accounting students tend to be concerned about getting the calculations correct, which may create silos, thus reducing their ability to be problem solvers and critical thinkers (Mc Guigan and Kern, 2013). Furthermore, when the focus is only on getting the correct answer, accounting becomes uncritical, resulting in accounting graduates lacking the understanding of underlying accounting philosophies. According to McBride et al. (2005), accounting education's technical and uncritical nature results in graduates who struggle with conceptual understanding and find it challenging to apply accounting concepts to new situations resulting in poor problem-solving skills.

From the accounts shared by academic participants, it emerged that some believe their primary responsibility is ensuring that the students have mastered all the prescribed technical content. On a pleasing note, however, academic participants indicated that they do their best, given the time available, to ensure that focus is given to pervasive skills and expressed that more attention needs to be paid to pervasive skills acquisition in this primarily technical degree. There seemed to be a general consensus from the academic participants that pervasive skills are vital skills to aspirant accountants and that in the absence of these skills, the prospective accountants would find it challenging to apply the acquired technical knowledge in the work setting. Due to their involvement in professional body (SAICA) structures where curriculum matters are discussed, other academic participants shared how excited they are about possible changes that the SAICA2025 (which is believed to be bringing much-needed changes for an added focus on pervasive skills) would introduce.

### *Sub-theme 2*

#### **The volume of academic work**

The participants revealed that the volume of academic work in the professional accounting degree programmes accredited by the South African Institute of Chartered Accountants (SAICA) might hinder or enable their pervasive skills development. The participants felt that the volume and intensity of the accounting programme leave very little time for paying attention to pervasive skills, thus identifying this factor as a hindrance in the development/acquisition of some critical pervasive skills like communication skills. The views of participants are captured in the quotes:

Academic, AA shared:

*I think what prevents accounting students from acquiring pervasive skills during university is the volume of work they are expected to cover and master.*

The sentiments were echoed by another academic, mentioning that:

*It's the SAICA syllabus.....I think the volume is unbelievable!. I see that especially now with my tutors, all in honours. I say to them, you know, I would not wish the amount of*

*content you have to deal with within a year. I would not wish it for my worst enemy.*  
(Academic, DD).

On the same note, Academic, RR added:

*The degree is full.....Because we expect the students to be able to do every single thing.  
But when they go into practice you find that they only specialise in one specific area.*

These views were supported by those of Academic, JJ, who said:

*I think you need 460 credits to have a degree; we've got like five hundred and something.....Can you really expect them to engage with someone else at an interpersonal level? Can you really expect them to take an hour out of their day, to have a conversation with their family? They can't because of the amount of work; just sleeping, eating, and learning fill our students' days. So, our students don't have any more time. Their interactions are limited because they have to deal with high volumes of work. That is why they are unable to develop some of these skills because they are always sitting in front of their books.*

Academic, FF added:

*With the volume they need to get through, it becomes challenging for the students to develop skills such as communication skills.*

The following excerpt from another academic participant confirms the same view as other participants.

*Some accounting students, due to the volume of academic work they have to get through, end up not participating in extramural activities at varsity, resulting in limited interaction. The accounting programme is rather heavy. I think they are less social..... our students have become less social. They basically move from one test to the next, from one deadline to another. To them, it's work, work, work. (Academic, GG).*

Academic, LL added:

*Expecting students to master all these skills during University years may be asking for too much because there's not enough time to do that.... Sometimes they have four tests in one week, and in a month's time, they have all four tests again. It's tough.*

Academic, RR also commented:

*They just get by.... With the syllabus that is technically intense and the volume of work, we need to get through in the accounting degree programme. There is no space to engage with the students all the time..... Having a syllabus that is too packed is also a hindrance.*

The quote below from Academic, EE reiterated the negative impact of a heavy academic workload on accounting students:

*They experience a lot of stress.... I sometimes think it's an overkill.*

Accounting students also shared their views about this sub-theme.

Student, Gary commented:

*Having a syllabus that is too packed is also an obstacle..... It's packed; you don't have time to breathe as a student.*

The fact that these participants said they have no time to breathe suggests that they have no life outside their books, a concerning fact.

Student, Tasha added:

*I know we are expected to perform well, but you know, life happens. Even students who have excellent soft skills, sometimes perform poorly. They must realise that we have other responsibilities as well. We have families and things to take care of. The workload doesn't allow us to live, let alone focus on these skills.*

Student, Stacy also shared:

*I think the amount of work and the pace we are meant to cover is crazy.*

Student, Jane disagreed with her mates, taking a different view about the volume of work they are meant to cover in relation to the development of pervasive skills. She said:

*I disagree; I think that the hard time we are having as accounting students, coping with the degree is meant to assist us to develop some skills, including time management and dealing with stress.*

### **Discussion of results: The volume of academic work**

Another process-based factor revealed as a hindrance to the development of pervasive skills relates to the amount of academic work in professional accounting degree programmes accredited by the South African Institute of Chartered Accountants (SAICA). The evidence suggested that the volume and complexity of the accounting programme leave little time for paying attention to pervasive skills, such as communication skills, but that some pervasive skills, such as time management, may still be established.

The evidence revealed that broadly speaking, there is very little time to pay attention to pervasive skills and qualities due to the amount of academic work in the academic programme. To demonstrate the amount of work the accounting programme entailed, it was pointed out that the current accounting degree comprises more than 500 credits instead of 400, as in other Bachelor's degrees. Given that, the amount of work in the accredited accounting degree was described as incredible, leaving students with little social time to engage with one another and others. Accounting students felt overwhelmed by the technical content that accounting students need to get through and the added focus on pervasive skills. This conclusion backs up prior research findings that the emphasis on pervasive skills has greatly strained the already overburdened accounting curriculum (De Lange et al., 2006).

These findings corroborate prior research that found that time constraints may limit academics' and students' ability to effectively focus on developing critical pervasive skills (Jackling and De Lange, 2009; Milner and Hill, 2008; AL Mallak, 2018; Bui and Porter, 2010). The evidence also pointed to the fact that there is not enough time to engage with accounting students on a one-to-one basis to track their individual progress or identify deficiencies in pervasive skills. More specifically, academic participants found it challenging to monitor the development of pervasive skills that accounting students should be developing in the background, such as critical thinking, and viewed tracking and evaluating each student's skill development progress within short time frames as a challenging task. The lengthy syllabus with much technical material to cover and a semester-based accounting curriculum were identified as contributors to the time constraints. This conclusion supports Parvaiz et al.'s (2017) assertion that the existing accounting curriculum places time constraints on academics, resulting in accounting academics finding a small window of time to concentrate on soft skills development owing to the broad accounting curriculum. This finding also corroborates Milner and Hill's (2008) view that some accounting academics believe there is "no time" for skill development in the

academic curriculum. Due to time constraints, student participants reported that they are more concerned with mastering technical content than with developing or improving pervasive skills.

Accounting students also face time pressures due to the enormous workload they are meant to deal with within a limited time, leaving them with limited time to focus on these skills, especially those gained outside the confines of the classroom. These findings back up AL Mallak's (2018) conclusion that accounting students believe there is insufficient time in the curriculum to focus on acquiring pervasive skills.

Surprisingly, some evidence seemed to suggest that the focus on pervasive skills will dilute the accounting programme. Such a view lends support to other scholars who also revealed that some academics believe that focusing on pervasive skills leads to a weakened accounting curriculum with less rigour in technical skills, which is why they believe pervasive skills should indeed be accorded restricted priority (Jones, 2010).

In mitigating this challenge, some participants raised the topic of 'specialisation,' arguing that the amount of academic work would be much more manageable if accounting students were permitted to specialize in one of the specialist areas in accounting (financial accounting, taxation, management accounting, or auditing) during their undergraduate studies given that even in practice accountants are not expected to specialise in all four specialist areas.

### *Sub-theme 3*

#### **No dedicated module for pervasive skills focus**

This sub-theme was revealed in research participants' views, particularly accounting academics. Their views suggested that the absence of a dedicated module focusing solely on these critical pervasive skills in the current professional degree programme negatively affected their development/acquisition or enhancement/refinement during the university years. This is what they had to share in this regard:

Academic, EE had this to say:

*It would be nice if, you know, out of the Big 4 modules, we have another module where*

*we introduce the practical aspect and skills, where the syllabus is not theoretical or technical, to reduce the burden students would have to go through.*

Academic, RR also said:

*If the university itself takes the pervasive skills issue seriously and comes up with special courses for the improvement of pervasive skills in students, this problem will not persist.*

Academic, EE also added to this view:

*Because we're in an academic space, there should be a space or course where there's going to be strong interaction among students, you know, among themselves.*

### **Discussion of results: No dedicated module for pervasive skills focus**

The findings in relation to this theme suggested that the absence of a dedicated module in the existing accounting degree programme that concentrates entirely on these vital pervasive skills has a negative impact on their development, enhancement, and refinement during university years. The present finding confirms that a dedicated module for pervasive skills development would benefit both accounting students and the academic programme, substantiating previous findings in the literature that supports a standalone module and arguing that pervasive skills should be taught separately from technical skills (Cranner, 2006). More importantly, this finding is consistent with previous findings from a variety of scholars who advocate for a separate module or course that focuses on pervasive skills seeing that in most instances, technical accounting skills are given higher priority in accounting programmes than pervasive skills, which may be detrimental to the development of these skills (Altarawneh, 2016; De Lange et al., 2006; Braun, 2004).

From the data, it appeared that a specialised module, rather than integrating the focus on pervasive skills into technical accounting courses, would relieve accounting students of the pressure. This finding is consistent with Jones (2009), who also identified a number of barriers to teaching pervasive skills alongside technical content such as structural, pedagogical, cultural, and epistemic (where generic skills were not considered to be part of the subject matter studied and thus not worthy of consideration within an accounting degree course) constraints.

However, this finding did not support previous research that advocated for a more traditional

approach predicated on the assumption that pervasive skills development should be incorporated into the discipline's study (Gammie et al., 2002; Moore and Hough, 2007; Kember et al., 2007). Other scholars who argued for an integrated approach include Ahmed (2010), who supported an integrative strategy and claimed that pervasive skills should be included in the accounting curriculum and that students could acquire them alongside technical accounting information. Even much older studies also concluded that pervasive skills training for university students is ineffective and that learning formal subjects and accumulating subject knowledge is a superior approach to enhance these skills (Hettie et al., 1996).

#### *Sub-theme 4*

#### **High student numbers in lectures – Limited opportunities for individual attention**

This sub-theme emerged from the views shared by the research participants. Many participants shared how the large class sizes that are so common in many universities across the globe have contributed to limited opportunities for them to get the individual attention that would ordinarily pin-point any skills deficiency if there was any. Some indicated that due to the number of students in lectures, some lecturers battle to know all the students, let alone what pervasive skills they lack.

The narratives of the two groups of participants reveal that the fact that there are too many students in classes affects many things, including getting individual attention. The quotes below show such narratives:

Academic, RR said:

*As an academic, you can easily see who needs to improve on what and who needs to work on that so that you can give tailor-made guidance. In large class sizes, unfortunately, it may be challenging to do this. You can't monitor each person's growth in terms of academics and pervasive skills. It's even difficult to give them individual attention.*

Academic, RR, echoed this point and said:

*I always see that in the post-graduate modules that I also take. There the class sizes are relatively smaller; you know, and that changes everything. In smaller classes,*

*supporting them is easier, and the students also feel important because you know them by their names.*

Accounting students also shared the same views.

Student, Vusi explained:

*I don't think our lecturers can manage to help all of us with these soft skills. There's just too many of us.*

Student, Stacy also said:

*I do understand there's just so many of us and so few mentors. They cannot obviously help us all. Some of us have to survive on our own.*

The view may also be seen in another participant's view who shared:

*I think that the smaller the class, the better it would be for students in terms of communication skills because you get individual attention in a small class, and you can't hide behind others. (Student, Vikash).*

### **Discussion of results: High student numbers in lectures – Limited opportunities for individual attention**

Overall the theme 'high student numbers in lectures' highlighted that broad class sizes, typical in many universities around the world, have restricted the opportunities to receive individual attention, which would typically identify any skills deficiencies if any existed. Indeed, because of the rising number of university students in many universities worldwide, seen in recent years, many teachers have turned to large group teaching and summative evaluation to handle the large student population (Green et al., 2009). According to the findings in this theme, large classes inhibit the development of pervasive skills by accounting students. Given that many pervasive skills have been argued to be best exercised and gained through group presentations and other learner-centred teaching modalities, which are challenging to implement in big lecture sizes, this finding seems plausible.

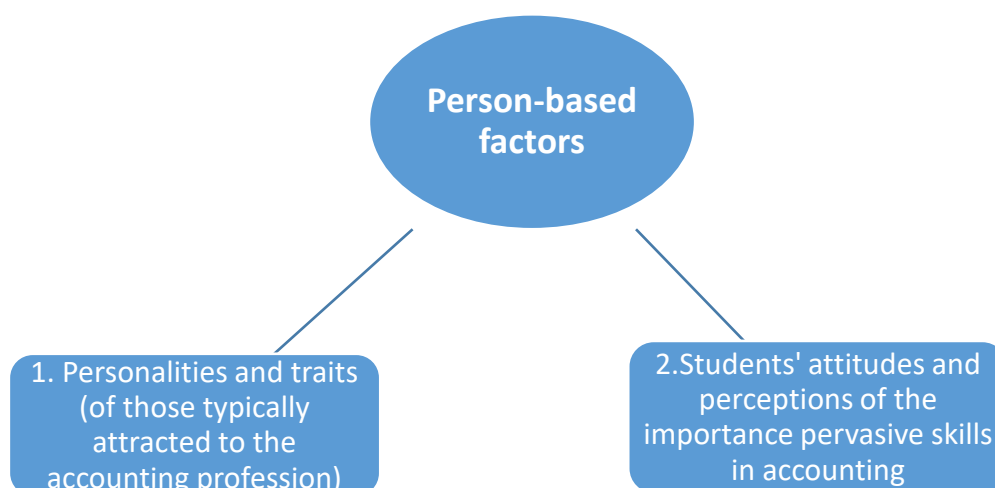
Given the high number of students, academic participants revealed that it might be challenging to identify who lacks what skill and who needs to focus on which skills so that they may provide customized or tailor-made solutions to each of these aspiring accountants, which would be possible in small class contexts. The student participants also shared the same view and believe that, for example, the smaller the class, the greater the opportunity for students to learn

communication skills. Additionally, they revealed that they receive individualized attention in a small class, cannot hide behind others, avoid answering questions, and participate actively in the lecture. Similarly, academics stated that in their post-graduate classes, which typically have fewer students, they could interact with accounting students more personally, which benefits students and their learning.

On the other hand, in large classes, the evidence suggested that some academics struggled to know all of their students well, let alone what skills they lacked. Indeed, it would not be easy to monitor each person's progress in large class settings, reducing opportunities for developing teacher-student relationships, which are critical for students' learning progress, and regular monitoring (Yorke and Harvey, 2005). Coupled with that, due to the nature of pervasive skills, as opposed to technical knowledge, which can be easily assessed/measured, it is not easy to track the creation of generic competencies since each student's prior experience differs (Chan, 2012).

Overall, this finding is in line with previous results reported that claim that broad class sizes have hindered the provision of scaffolding for students' development of advanced pervasive skills and attributes in many cases (Bunney et al., 2015; AL Mallak, 2018). However, given the increased accessibility to higher education, the funding system for universities, and the overall desirability of accounting programmes among school leavers in South Africa, the challenge concerning class numbers is not easy to resolve.

## Main Theme Two



**Figure 5.5: Main theme 2 with sub-themes**

**Source: Self-generated**

From the responses received from both students and academics in accounting, it was discovered that the background, personality, and profile of prospective accountants have a bearing on the ability to acquire/improve or enhance pervasive skills by accounting students, as demonstrated in the main theme above. There are two sub-themes to this main theme, as shown above in Figure 5.5, and data pertaining to each of the sub-themes is presented below:

#### *Sub-theme 1*

#### **Personalities and traits (of those typically attracted to the accounting profession)**

In this sub-theme, participants spoke about how the personality of those typically attracted to the accounting profession could hinder their development or demonstration of pervasive skills. This view may be seen in their statements below:

Academic, GG expressed this view by saying:

*The personality of the student also plays a role. It can enhance the gaining of these skills, but sadly to some, it may be a hindrance.*

Academic, MM also commented and went on to say:

*How they view themselves and whether they can develop these skills depends on whether they think they can actually be able to.*

The views of accounting academics on this sub-theme were supported by those of accounting students. This is evident in the following words:

Student, Bradley said:

*I think that some people are too shy by nature. I know from talking to some of my friends who are shy that they decided on this career because of the type of work they thought it would be. They knew their characters were not best suited for careers in the creative arts, for example.....They thought that this one was best because they are not extroverts. Some of my friends feel let down because now they are told that they will be expected to address people, e.g., during meetings at work. Now they see that the ability to address people is important. I know that it is sad for them.*

Student, Tasha went on to say:

*I was also convinced that it's not necessary to have communication skills in this profession; I now learn that I will be expected to talk to people at work. I was hoping for some corner office where I would go about my work quietly. I personally would not want to find myself in an open-plan office with lots of people...that setting is intimidating and too much.... I prefer doing work on my own.*

Student, Stacy confirmed the views of Student, Tasha, and Student, Bradley by saying:

*I don't like group work if I don't have my friends in my group. I don't like being put in a group with people I don't even know.*

### **Discussion of results: Personalities and traits (of those typically attracted to the accounting profession)**

Participants in this sub-theme revealed that the personality of those drawn to the accounting profession might be an obstacle to their acquisition or demonstration of pervasive skills. This was not surprising since prior research has shown that some personality qualities promote the acquisition of various skills and abilities (Barrick et al., 2001).

The analysis revealed that some might be attracted to the accounting profession because of their perception of the chartered accountancy profession. From the analysis of data, it appeared that people who are shy by nature and reserved seemed to prefer this profession. Most student participants shared that they had opted for this profession as they believed their personalities aligned with their perception of the accounting profession, a profession they thought would be ideal for introverted and reserved individuals. This evidence is consistent with Fallatah and Talha's (2009) findings, which reveal that communication (oral and written) apprehension of writing is one of the significant factors influencing a student's choice to pursue an accounting qualification.

Similar findings have been reported in previous studies. For instance, it was found that persons who are attracted to accounting would be those who assume they fit the image of an accountant (Jeacle, 2008; Friedman and Lyne, 2001). Such observations are expected, given that accountants are commonly characterised in movies, comedies, and other forms of social media

as dull, monotonous, conservative, cautious, and involved in tedious and uninspiring work (Jeacle, 2008; Friedman and Lyne, 2001; Dimnik and Felton, 2006). Then again, while these misconceptions must be challenged, the fact that accounting students' personality traits continue to align with the traditional image of accountants as technical specialists does not help (Andon et al., 2010).

Based on their knowledge and conversations with their peers in the same academic programme, it was discovered that some students who chose to pursue a career in accounting felt betrayed or let down when they were informed of how critical pervasive skills like communication skills are to any accountant wishing to succeed in this field. Some participants initially believed that social skills were only crucial for creative arts or other related fields, but not for technical fields like accounting or engineering. This finding was consistent with research showing that some accounting students appear to have been driven to the profession by a misunderstanding that it only demands minimal pervasive skills, notably communication skills, which might cause future graduates a considerable degree of dissatisfaction (Arquero et al., 2007). A study by Gracia (2010) found a similar pattern of results, concluding that some accounting students believed they only have to be excellent with figures to succeed in the accounting field and that they do not have to focus on those around them. By all means, this can be partly attributable to the misconception that accounting professionals exclusively engage with figures and records and that oral and written communication is considered less vital (Ameen et al., 2010) or irrelevant for accounting work (Meixner et al., 2009). This evidence confirmed Howieson's (2003) conclusion that some students may self-select into the accounting programme due to a misunderstanding that this discipline is not a communication-focused field.

### *Sub-theme 2*

#### **Students' attitudes and perceptions of the importance of pervasive skills in accounting**

This sub-theme was the last theme that emerged from the data collected and analysed to answer the third research question under the second main theme. It was interesting to discover that participants believed that the accounting student's view about the importance of pervasive skills affected their prioritisation and focus on these skills. Views from both sets of participants are indicated below.

Academic, LL gave a detailed account of this sub-theme in his narrative below:

*Students don't realise the importance of pervasive skills in the workplace...Some of them perceive them as nice to have. I think these skills are also underrated and taken for granted because most of the focus is on technical knowledge. Little or no attention is given to pervasive skills. Most students do not see that these skills will affect how they perform work in the workplace, which is probably why they are not giving these skills attention.*

Academic, MM supported the opinions of the other accounting academics in this regard. She extended the view by stating that:

*As much as we teach them these skills and professional scepticism, applying them is very hard if there is no way of assessing them. If they don't have the skill – they just know about it as a vague thing or idea. They just want to write and pass the exam.*

There were multiple views from accounting students on this sub-theme. Some showed that they felt pervasive skills were essential and critical for a professional career in accounting, while others showed that these skills were not that important. The participants expressed the following views:

*Most students just want to get through the work. They are worried about passing the next test or exam. You would be shocked if you had to ask them if they are concerned with their soft skills [laughs]. (Student, Bradley).*

Student Gary further elaborated, saying that:

*Yes, in a way, okay, you can teach people, but it's also their decision to use their skills. So if you teach people that okay, when you're stressed, do this to your palm [rubs the palm of hand], it's their decision whether they think that will be useful for them.*

Student, Vusi's view shows his attitude towards pervasive skills. This is what he had to say:

*They help you in the sense that you work effectively because, for example, if you cannot communicate well with other people, then it makes it very difficult to do your work well.*

Student, Linda added by commenting that:

*People need these skills when they get to environments they're not used to, like when they leave the university. That space has different people who come from different backgrounds. So it's important to have these skills because, in a sense, you get to connect with those people at a professional level. If you can't communicate, then you can't connect with people. So it's very important to be able to connect with people before you, you know, work with them. You must just find a connection so that you work well together.*

Student, Spencer's referral to pervasive skills as 'small skills' indirectly revealed his view about the importance of pervasive skills. He said:

*These are the small skills one needs to interact with others in all settings, like work setting....In a way, academics can teach us about the importance of these skills and work hard on demonstrating them, but it is up to us to use and pay attention to them. You see, students usually decide for themselves whether to pay attention to something or not to.*

Student, Jane also referred to pervasive skills as small skills in her comment below:

*You would be able to pick up fraud easily with these small skills..... These are the small skills that help one to build a professional career.*

Student, Gary added that:

*I think some students lack the skills because they just don't care. They just don't pay attention to these skills. I know some of my friends doing the same degree don't even feel communication skills are important in our discipline ....They feel that focusing on soft skills is a waste of time.*

Another participant also commented:

*I think that how one feels about these skills is also important. If these skills were seen as important by the students, then the situation might look better. As a student, I must be convinced that these skills will help me. (Student, Ashley).*

### **Discussion of results: Students' attitudes and perceptions of the importance of pervasive skills in accounting**

The results under this theme demonstrated two things. Firstly, that the attitudes of accounting students about focusing on pervasive skills in the academic programme, and secondly that their perceptions of the importance of pervasive skills in accounting were factors that may either support or hinder their development of these skills. From the analysis, it emerged that these two issues might affect the students' prioritisation of the skills alongside technical skills.

The analysis revealed that some accounting students did not perceive pervasive skills and attributes as critical in the accounting profession. This was evident in the words they used to refer to these skills. The wording used by some accounting students showed their perceived importance of pervasive skills, with some referring to these skills as 'small skills.' This shows that as much as some accounting students may realise the importance of these skills, to some, these are just secondary skills; hence, they put more effort into acquiring technical skills than these skills. Additionally, those who viewed these skills as 'extras' also seemed to lack the capability to create a link between these skills and their ability to secure professional employment in the field. Considering that some students who viewed pervasive skills as extras are about to graduate was concerning. Such a finding corroborates Klibi and Oussii's (2013), who stated that recent graduates appear to place more importance on technical ability than pervasive skills. Coupled with that, it also emerged that convincing students that pervasive skills are essential does not guarantee that the students will start prioritising the skills.

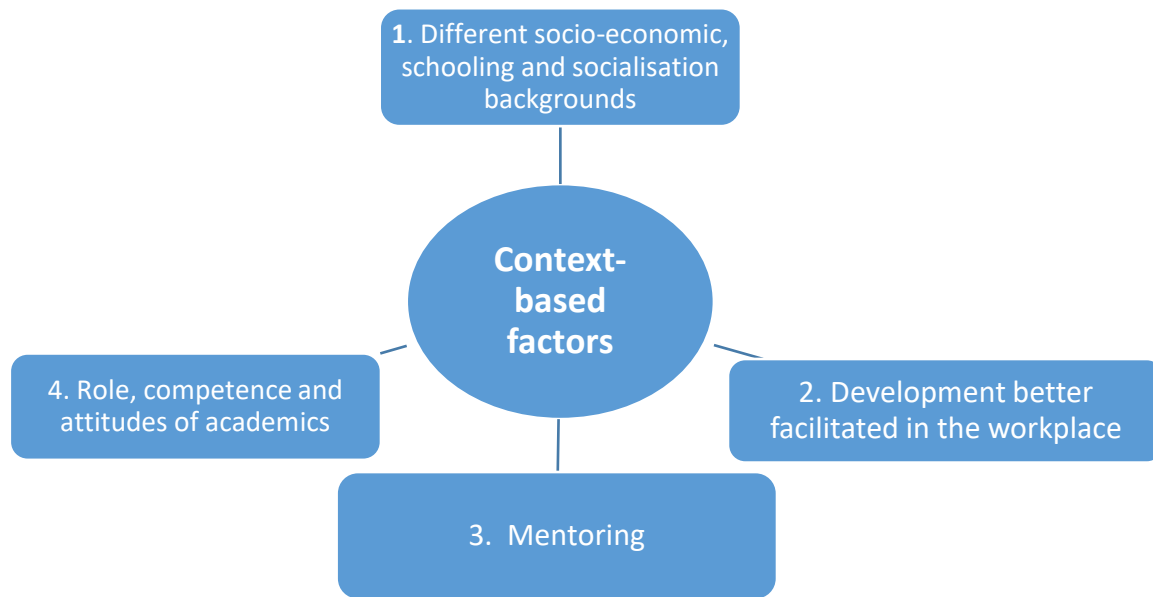
When comparing the findings under this theme to earlier research, it is worth noting that accounting students' attitudes and perceptions of the importance of pervasive skills in accounting have come up in various academic debates as a potential impediment to their acquisition of these skills (Bui and Porter, 2010; AL Mallak, 2018; Hancock et al., 2009). Rainsbury et al. (2002) also discovered that students' assessments of the importance of specific skill sets in the workplace are linked to their capacity to learn such skills during their university

education. This finding corroborates the findings of Bratianu and Vatamanescu (2017), which suggested that the challenge of ingraining pervasive skills appears to be linked to students instead of academics because students are required to work harder in acquiring these skills and should assume responsibility for their acquisition. However, this finding contradicts earlier findings by AL Mallak (2018), which, through a quantitative method (as opposed to a qualitative method used in this study), found that students did not believe that their perceived relevance of pervasive skills impeded their potential to develop these skills.

Although most students felt pervasive skills should be given added focus, some believed that the focus should be on specialised knowledge rather than pervasive skills development. Interestingly the students who felt that the focus should be on technical proficiency also noted that students who arrive at university with the skills perform better academically than those who do not. Coupled with that, the evidence suggested that accounting students believed that rather than being told that professional bodies like the SAICA expect these skills from accounting graduates, their lecturers should strategically sell the value of these skills to them so that they, as aspiring accountants, see how important they are for a successful professional career in accounting.

On a positive note, it was revealed that most students realised how critical, pervasive skills and attributes are for a successful career in the accounting profession. This was in line with previous results that Viviers (2016) reported, which suggest that accounting students are aware of the significance of pervasive skills in the accounting profession and that they regard pervasive skills as vital. This was concluded after an investigation into the accounting students' levels of knowledge and familiarity with the SAICA's requisite pervasive skills was conducted.

### Main Theme 3: Context-based factors



**Figure 5.6: Main theme 3 with sub-themes**

**Source: Self-generated**

Figure 5.6 illustrates the second main theme, 'Context-based factors,' which contains four sub-themes. This theme indicated that the manner and pace with which accounting students learn pervasive skills are influenced by their environment (context). Below, a detailed focus on each of the sub-themes is provided.

#### *Sub-theme 1*

##### **Macrosystem: Different socio-economic, schooling, and socialisation backgrounds**

Under this theme, some participants commented on how different backgrounds, upbringing, and socialisation shape one's level of pervasive skills and how they demonstrate such skills, particularly in group settings. In particular, accounting academics shared their views based on their observations of accounting students in classroom settings and through their one-on-one interactions with students through consultations and even their personal experiences. This is what academics had to share:

Academic, EE said:

*What could, sort of, work in favour of the pervasive skills, is to start some of these skills at a lower level, for example, in a home environment. There's a tendency among parents*

*and kids these days that there is less communication. To some parents don't communicate with their kids, it's almost like instruction, do this and do that, and often there's no, interaction. Some of these sorts of pervasive skills are enhanced at home where, for example, you allow a child to voice out what they think is a correct perspective or view.... And in that way, it will actually encourage or make them more confident in terms of sort of expression. In that way, if it is cultivated at a much lower level as opposed to a tertiary level, it is good.*

Academic, JJ shared the same view and added,

*I think a large part comes from cultural backgrounds. So if I look at the – if I look at my classes as well, I have observed that there are no white students there. In prior years when I had the confident speakers, the ones that answered diligently every week and were not afraid even to say the wrong answer, the [XXX – race not shown\*] students, and they sort of influenced the class, where they felt more comfortable, one person is speaking, let me speak as well. I find that I have, in my class, mainly [XXX – races not shown\*] and a few [XXX – race not shown\*] students, and within that group, a lot of them have cultural backgrounds where children need to be seen, not heard. Some come from these backgrounds where they must suppress themselves in a public situation and are very subdued. So I think partially, I think we have to recognise that the cultural background – because some people are conservative in how we bring up their children and that influences the way they speak. Some are not confident, particularly the females; you will see that they are differences between males and females. So we can't ignore the cultural background of the students.*

Academic, MM added that:

*The family background they are coming from could impact whether they are open to learning certain things and developing specific skills.*

Academic, RR further elaborated by saying:

*Looking at the social side, we must remember that accounting students come from different backgrounds. Some come from families where you can talk freely with the*

*parents, and some, unfortunately, do not. Some live in on-campus residences, but their parents check up on them constantly. Some have parents who never come to check up on them, which is rather sad, but that may be beyond the parent's control.*

She continued to say:

*The support structure is critical to developing these skills*

Other excerpts taken from accounting academics are as follows:

*The students are also not exposed to different things and situations as they come from different backgrounds. (Academic, AA).*

*I think it is because students come from different backgrounds, which has an effect because these skills may not be nurtured in the same way in all students. (Academic, GG).*

Academic, RR explained:

*Cultural issues, too. Some cultures place more emphasis on those pervasive skills than others. If I can give you an example of my student who comes from a very strong [Culture not revealed\*] culture, he is much more respectful. And he seems to demonstrate some skills at a higher level.....I also have seen other students from cultures that do not promote these pervasive skills, and you see them not showing some social skills.*

Academic, LL added:

*I have seen that international students from other places outside South Africa tend to have superior skills to their local counterparts.*

Academic, RR also added:

*Some have parents that provide all the support and all the necessities. Some are even provided with professional support, offered privately but funded by the parents, like extra tuition. All these things eventually affect the students in terms of how they see themselves and their self-esteem.*

Accounting students also revealed the same issues; they explicitly brought out the concept of

background and socialisation. This was articulated by one of the participants:

Student, Stacy said:

*I think the family culture you grow up in affects your skills. You know, in some cultures, they encourage kids to speak up. In some cultures, kids are not expected to speak up, it's seen as disrespectful. As a child, you need to listen and know your place in some cultures.*

Participants also perceived schooling background as a factor that may have hampered or aided the development of pervasive skills in some students before they commenced their higher education path towards their career preparation. The following narratives of participants make this finding clear:

*Students in school just learn from the book, and they write exams and pass. So I think in school, these skills are not talked about and not given priority. I've seen that students from private schools have better personal skills than others. I think that private schools emphasize these skills much more. I suppose it's because of the low numbers. If you have a few learners in your class, you can give them individual attention and monitor them easily. Exposure, you know. (Academic, AA).*

Academic, DD supported this view:

*About decision-making, I think I would be lying to you if I did not say that part of the problem is our education system.*

Academic, GG added:

*Some of these skills are carried from high school through to University.*

Academic, JJ echoed this point and explained:

*But, the other thing that could also be a factor is schooling. A lot of the students that are my students are from model C and public schools, and previously we did have many students that came from the private schools, St Charles, and so forth. You find that there is a difference there. So the private schools encourage confidence, they encourage talking, they want students to show leadership skills, and how do you show it is by voicing your opinions, standing up even if you are wrong, you still voice your opinion. Other schools don't really encourage that because they have their own challenges, large classrooms, not identifying with their students, and having a heavy teaching load.*

*So they also have their challenges, which unfortunately impact the students when they come to us.*

Accounting students also shared the same sentiments, sharing how their diverse backgrounds, and in this case, schooling, have shaped their pervasive skills. The quotes below reiterate the views shared by accounting academics about the role of their different background in their pervasive skills development or acquisition.

Student, Vikash had this to say:

*I think our schooling plays a big role in our skills.*

In the following quote from Student, Vusi further elaborated on how the different schooling systems had on their development of pervasive skills. This is what he had to say:

*Those coming from private schools are more outspoken. They also get exposure to a lot of things. These students are flowing at university. They can think critically because their schools encourage that. Private schools expose them to many things, like leadership courses and mentoring. They have debating clubs and public speaking, and these are good. Unfortunately, not all students come from that private schools. Many come from public schools, some even from rural backgrounds. So it's a big gap to fill.*

Student, Carl had an interesting point about schooling background, saying:

*I know some students come from 'all girls' and 'all boys' schools.' Those students are not used to opening up or interacting with people of another gender. That might affect them now and even later.*

Another excerpt on this sub-theme appears below:

*I always see those students who come from multi-racial schools; they always have better communication skills than us from rural areas. (Student, Vusi).*

## **Discussion of results: Macrosystem: Different socio-economic, schooling, and socialisation backgrounds**

From the results obtained under this theme, it appeared that the accounting students' diverse experiences, school histories, upbringings, and socialization have affected their levels of pervasive skills and how they demonstrate them, especially in group settings. It seemed that differences relating to their diverse backgrounds might explain why some accounting students take longer to acquire or demonstrate the required pervasive skills than others. This result, as revealed under this theme, perfectly aligns with Bronfenbrenner's Bioecological Theory of Human Development. This theory suggests that development will vary from one individual to the next because of the students' unique biological makeup that interacts with the environment, activities, opportunities, and interests (Bronfenbrenner and Morris, 2006).

From the observations and interactions with accounting students in lectures and consultations, academic participants shared that they are convinced that how parents interact with their children in a home setting has a bearing on their children's acquisition of these skills, specifically communication skills. It seemed that students from households where they are allowed to speak up and make their own decisions tend to be more confident and demonstrate critical thinking, problem-solving, and communication skills than those from very conservative households.

From the analysis, it was clear that the acquisition of pervasive skills starts early on in life before the aspirant accountants begin their university studies. A person's schooling background was also mentioned as a factor that might hamper or help them build pervasive skills. Participants expressed the notion that pervasive skills and attributes are carried over from school to university and refined there. Participants believed that accounting students with a private schooling experience were more likely to possess and display more sophisticated pervasive skills and attributes than their counterparts with a public schooling experience, particularly those with under-resourced schooling backgrounds. Another finding from the participant responses was that the type and level of pervasive skills and attributes gained at a school level differed depending on whether an accounting student attended a single-gender or co-ed school.

Taking a different focus on the 'backgrounds' theme, it emerged that students from supportive family environments seemed to develop and display heightened levels of pervasive skills than those with no such background. This cohort mainly came from home backgrounds where the

parents seemed to play a more active and supportive role and were privileged to receive that kind of support, and such backgrounds seemed to produce better levels of pervasive skills than others not in a similar situation. It was suggested that this cohort of students was ‘privileged’ because some parents would even go as far as seeking and paying for additional support for their children if needed. On the other hand, students with no such family background seemed to rely on their lecturers or mentoring initiatives for such support. This backs up previous findings in the literature that pointed to the family as a factor in the microsystem that can help or impede the development of pervasive skills (Ha et al., 2012). This finding is also consistent with that of AL Mallak (2018), who found that family culture and a lack of family support impede the development of pervasive skills among accounting students.

Cultural backgrounds also emerged as hindrances or enablers to pervasive skills development in accounting students. The evidence suggested that some cultures created an enabling environment for acquiring these skills by encouraging children to speak up, which might not be allowed in some. Not only is an environment not restricting suitable for developing self-confidence but pervasive skills such as decision-making, problem-solving, and communication skills.

The evidence under this theme also suggested that those with foreign study experience (international accounting students) demonstrated superior pervasive skills to those without. This was attributed to their interactions with people from different backgrounds. Such a finding is in line with what was reported by Pascarella and Terenzini (2001) that connecting with people from other backgrounds improves the development of pervasive skills,

Another issue that came up related to racial backgrounds. It emerged that students from certain race groups, more specifically females, seemed to suppress themselves in public or crowded situations than those from other races, who generally appear to be more comfortable than subdued.

### *Subtheme 2*

#### **Exosystem level: Development better facilitated in the workplace**

This theme came across in many responses from both sets of participants. They shared a view that supports the focus on pervasive skills during professional training (articles), citing that there is not enough time to focus on these skills in the academic programme. In addition, the

participants believed that the workplace is better able to handle this obligation than the academic setting. The following are some of the participant's thoughts:

Academic, LL stated:

*I think they will be better equipped to focus on the pervasive skills during their articles.*

Another participant, Academic, RR, went on to explain that:

*During their work experience, they will get an opportunity to acquire these skills at a much more rapid pace.*

Academic, LL extended this view:

*If they don't come with some of these skills to University, it is a challenge because we cannot take them as far as we want within the time allocated.... It then becomes the firm's responsibility to provide the training on pervasive skills that would be required and in line with the firm's requirements.*

Academic, MM also expressed the same view, stating:

*I think most of my pervasive skills were built during my articles because you go through the toughest of times during articles. During that time, I also realised that I needed help from others, especially if I didn't understand something. I had to learn to approach others. You know, in such instances, you can't say to a client, well, let me look in my textbook or let me go ask my manager when you need to answer confidently. Those situations also help build your confidence and skills.*

Academic, DD further elaborated on this theme, stating:

*To me, the articles were about learning. I have always been the kind of person who always wanted to learn. I learn from my experiences the best way to acquire the necessary soft skills.*

Academic, RR also shared how the challenging professional accounting environment taught her much-needed pervasive skills. This was evident in the following words:

*I got to understand that corporate is not as supportive as I thought. It was through the hardships during the articles that I gained most of my skills. I used to think that I would just get a job with a corner office and that I would do my work quietly and everything.... And you get to understand, Good Lord! There's a lot more to it than that! When you go out to clients, you don't deal with the lower level staff only; you speak to executives too. So you have to also speak in a specific tone, and this we were never taught. So from that, I learned quite a lot quickly. During my articles, I developed problem-solving skills all the time.*

It is apparent from the participants' narratives that accounting students' perspectives were similar to those of accounting academics, implying that the workplace provides an environment conducive to acquiring or refining the pervasive skills required for a professional career in accounting. Student, Gary, made the following remark:

*Our academics have good soft skills because they have been exposed to the work environment.*

The same view may be seen in Student, Carl's comment, he said:

*I think it would be better to focus on these skills during articles because you are already set in that environment. As a trainee, I think you are presented with real-life problems, and you get to develop your problem-solving and critical thinking skills.*

### **Discussion of results: Exosystem level: Development better facilitated in the workplace**

Some academic participants felt that accounting graduates would be better equipped to develop necessary skills when serving their articles (during the professional programme). They explained how the accounting graduates could develop or improve their pervasive skills and attributes at a much quicker pace than they would during the demanding academic programme.

As qualified chartered accountants themselves, these academic participants revealed that they had developed most of these pervasive skills and attributes during their professional training. They shared how the articles made them endure the most challenging times, forcing them to develop coping mechanisms and pervasive skills. Academic participants revealed that face-to-

face encounters with clients in the workplace forced them to extend their skills and technical knowledge as it was challenging to be unconvincing in front of a client. These challenging situations were said to have helped them develop the skills and confidence necessary to survive in a professional space. It emerged that some academics only realised during their articles that they needed to be able to communicate with others. This was because they frequently sought assistance from others/colleagues since they did not always comprehend the task assigned to them and hence required the assistance of others to clarify the task. One participant described how she came to realise how unsupportive and nurturing the corporate world might be. This was attributed to the difficulties she had, and she believed that as a result of those difficulties, she evolved and developed the most pervasive skills. She expressed her disbelief when she began her professional training since she had assumed that her "new work" would provide her with a "beautiful corner office" and that she would not need to speak with others frequently. To her astonishment, the 'new job' required her to communicate with others within the organisation at various levels and with clients outside the firm. She credits her professional work experience with her excellent communication and problem-solving skills. Given these accounts, it appears that professional training is about learning, learning from one's experiences. This would explain why academic participants felt the best way to acquire the necessary pervasive skills is through workplace training. This finding confirms previous findings that even in other occupations, skills including critical thinking, communication, and teamwork are reported to be more entrenched after years of employment (Messum et al., 2015).

Findings under this theme may point to reasons why some accounting students may not be at the required level with regard to pervasive skills at the end of the academic training programme. The results suggested that pervasive skills are better developed in the workplace. This finding is in line with the findings reported by Tan and Fawzi (2017), which revealed that the development of pervasive skills is more easily enabled in the workplace. Jackling and De Lange (2009) also came to a similar conclusion and reported that prospective chartered accountants should gain essential pervasive skills during their training programme (Jackling and De Lange, 2009). Furthermore, this conclusion resembles that of Tse (2010), who stated that work placements or internships are effective ways to develop pervasive skills due to the fact that work placements or internships expose students to 'real-world' job scenarios.

Given the findings, it seemed that the professional workplace, mainly the accounting firms, were better equipped and that the experiences trainees were exposed to were bound to fast track

the development or refinement of these pervasive skills. This was also suggested by Levasseur (2013), who confirmed that continual practice and evaluation of performance feedback, whether based on self-reflection or constructive contribution from others, facilitates sustained skill advancement, bolstering the argument that the workplace is best suited for this mission. Further, the professional workplace was deemed to have staff that can serve as mentors who can handle this responsibility and offer training better than the academic programme. This lends support to Jackson (2013), who argued that for professional accountants to flourish in the long run, businesses should give them opportunities for pervasive skills training.

Based on the findings, it also emerged that there is not enough time to focus on these skills during academic training. This viewpoint is consistent with that of Stone et al. (2013), who argued that it is unrealistic to expect the academic programme first to address the students' skills deficits, then efficiently contribute to their overall development of skills such as communication skills, all while making sure that students have completed the technical accounting content that the professional bodies require, all within the mainly three-year timeframe.

Accounting academics and student participants held similar viewpoints. Most student participants stated that their lecturers exhibited outstanding pervasive skills that they, as students, might benefit from but could not focus on right now. They believed that focusing on pervasive skills would be easier during professional training because they would already be in that setting. Participants also explained that they believe that most accounting firms' work involves interaction and communication with others. Such an environment would likely present real-life problems that would improve one's critical thinking, communication, decision-making, problem-solving, and stress management skills. This position is similar to that of Maelah (2011), who contends that skills such as communication, teamwork, and leadership are better fostered through work experience. This conclusion, however, contradicts prior findings by Crebert et al. (2004), who claim that pervasive skills like problem-solving, critical thinking and communication may be effectively cultivated within an academic programme. Moreover, this finding is contrary to those that suggest that both academic and training programmes are critical in ensuring that graduates are prepared in terms of both pervasive and technical skills (Keevy and Mare, 2018).

### *Sub-theme 3*

#### **Microsystem level: Mentoring**

In this theme, both sets of participants acknowledged the importance of mentoring by experienced chartered accountants in public practice or academia on pervasive skills. However, the logistical challenges of coordinating mentoring programmes were also identified as a hindrance. The following quotes represent the views of participants on this sub-theme.

Academic, MM articulated the challenges associated with mentoring in the following quote:

*Our mentoring is also limited.....Everyone wants to mentor their students – as a lecturer, you want to mentor them. But, it is just not practical.*

Academic, RR also added:

*The picture of the student: mentor ratio is not so good, so we have a limited number of mentors.*

Academic, MM shared the details of her involvement in mentoring in the following excerpt:

*It is just a group of fifteen, and we provide additional support. We call it the wrap-around support. They do get to do everything with the mainstream students – attend tutorials and all of that. But, we also sit down with them and say; okay...what support do you need? We evaluate everything they do, their skills...We then develop support for them. Recently, we had a business-writing workshop for one and a half days, which, I think, is really helping them in terms of how they write and how they communicate. After that, we had them do presentations.....Not only will they come out of the system with technical skills, but they will also be well-rounded.*

The benefits of mentoring for pervasive skills acquisition are clear in Academic, RR's comment:

*With mentoring, at least students get it from the practical side of things, not just theoretically or from the person who stands in front of them all the time. It's best to get people to, you know, come in and demonstrate some of these skills in a practical sense.*

Academic JJ shared her views on this matter, stating:

*I remember telling one of them that the whole purpose is for students to observe pervasive skills from experienced CAs, which is more important than just knowledge...Unbelievably, I had a handful of mentors who were not confident themselves. I am not sure if they are struggling with pervasive skills. Maybe they were not properly mentored themselves. You'll never know! Some experienced CAs come back and tell me that mentoring helped them too.*

On a different note, another view that was shared highlights the role of the student as well.

*I can demonstrate these skills as a mentor, but I think it is up to the student to learn.*  
(Academic, FF).

The views of accounting students were similar to those shared by accounting academics. These were their views:

Student, Carl said

*I think the best way to obtain soft skills is through mentoring. You aren't told what skills are needed with mentoring and why they are essential. But you get to see these skills closely from your mentor. You can even ask your mentor to help you improve yours.*

Student Stacy added:

*In high school, I had a mentor who was my Maths teacher. I promise you that I learned more from her than from the textbook and Google. I think when you observe, rather than being taught, it works. I think it's the same thing as having parents that are good examples; you tend to learn a lot from them. If your parents are successful, you will likely wish for the same. You just feel like if my parents were able to do it. I can do it too.*

It is clear from the views shared by Student, Bradley that accounting students do desire to be mentored and see value in the mentoring exercise; this is what he had to say:

*I think that in the final year, we should be allocated mentors. Mentoring should not just be for a selected few; we should all benefit from it.*

Student, Stacy also highlighted the challenge associated with a shortage of mentors in the following excerpt:

*I'm not mentored by anyone here at university. I learn as much as I can. I also read a lot. I think that helps me a lot. I do understand, though, that there's just so many of us and so few mentors. Some of us have to survive on our own.*

### **Discussion of results: Microsystem level: Mentoring**

Another dynamic from the analysis was the importance of mentoring for pervasive skills development. Both groups of participants believed that mentoring by seasoned chartered accountants in public practice or academia was critical for pervasive skills development. This finding is consistent with Lyons and Pastore (2016), who found that mentorship and coaching are two techniques that can help with professional development and pervasive skill training. However, the evidence gathered under this theme on the organizational complexities of coordinating mentorship programmes was described as a hindrance to students developing these critical skills.

Most academic participants stated they were interested in formalized/organized mentorship programmes or informally mentoring accounting students seeking to be chartered accountants. Most mentioned that they were delighted to mentor these aspiring accountants and that mentorship benefits students in various ways, including improving their pervasive skills and attributes. Most academic participants believed they were ideally qualified to mentor/tutor these aspiring accountants because they had been through the same process and faced the same obstacles before becoming chartered accountants.

Parents and school teachers were also identified as suitable mentors in this study. Student participants mentioned how valuable it was to be mentored by their teachers while still in school. This finding backs up Campbell's claim from 2010, in which he emphasized the necessity of role models for students, such as parents or teachers (among others) because such support structures help students establish pervasive skills. A similar conclusion was reached

by Topping (2005), who concluded that role modelling and mentoring are two of the most successful approaches for supporting students in developing personal traits and skills.

The evidence collected also revealed that some accounting students had the luxury of being mentored on skills during the academic programme. Such students had the opportunity to be taken on courses to help them improve their skills, such as communication skills, as part of formal mentorship programmes at university. One of the courses such students were taken to was identified as The Business Writing Workshop. At the same time, some student participants believed that in the final year of study, all students ought to be allocated a mentor so that the opportunity to be mentored does not remain a privilege enjoyed by a select few.

The data also revealed that some mentoring came from qualified accountants (employed outside the university) who signed up for the student mentorship programme. This mentoring programme was designed to allow students to observe pervasive skills from experienced chartered accountants, which was deemed more valuable than simply sharing knowledge. From the evidence, it would seem that the best way to develop pervasive skills was by observation, studying the skills of their mentors, and asking for help if necessary. These findings substantiate prior research that suggests that interactions between mentors and mentees can help improve communication skills (Dawson, 2014). Albretch and Sack's (2000) pioneering study also found that accounting students who had the opportunity to engage directly with already qualified accountants better perceive the field and the skills necessary to thrive in it. Moreover, this discovery backs up the views of accounting regulators. In particular, the IFAC indicates that practices like mentoring, observation, networking, self-directedness, self-reflection and unstructured information acquisition can promote the acquisition of pervasive skills and qualities (IFAC, 2017a).

Although mentorship was recognized as an effective intervention for pervasive ability growth, academic participants acknowledged that their mentoring capacity was limited due to the number of students and their other academic responsibilities. The number of academic staff in relation to student numbers was also exposed as an obstacle; therefore, the inadequate capacity to mentor was established as a barrier. Academic participants also stated that, if the circumstances permitted, they would ensure that each student pursuing a career as a chartered accountant was mentored during the academic programme. However, given the current student-to-lecturer ratio, providing individual mentoring to each student seems impractical.

#### *Sub-theme 4*

##### **Microsystem level: Role, competence, and attitudes of academics**

Some participants stated that some academics did not believe in focusing on pervasive skills in addition to technical accounting knowledge in their lectures, based on their comments. Some argued that pervasive skills are challenging and that modern teaching methodologies are required for this purpose. This was evident in Academic, DD's comment, *"Just like how we moved from paper-based to computerised systems, there was some learning, a little bit of pain involved, you know, because we would normally write things and then we had to learn to type. Now we have to move from slides to creating videos or games to teach students how to answer questions in order for them to develop these skills. Some of us may shy away and may think it's too hard. I have experienced this personally, I did a blended learning course offered by the university last year with other academics, and I really enjoyed it. I went and tried to implement all that I learned in the course. It took me very long to do it. Other academics who underwent the same course could not complete the task after one week. I thought this was ridiculous because it was such useful information, and students love some of this stuff... So I think some academics may be unwilling to try new methods.*

Academic EE also commented, saying:

*Some academics have not bought in. If you have a situation like that, students would pick it up and say, all right, it looks like it's just something we just need to do, and there is no significance around this particular activity... But you sometimes wonder if, for example, a student answers in a tutorial session, would that be enough for communication skills?*

Academic, LL had this to share:

*As academics, our main responsibility is to provide them with knowledge. When the students come to University, they are already adults.*

Academic, MM also stated:

*We want to ensure that each student that we graduate has critical thinking and good*

*problem-solving skills. You can do that in your sessions if you have a smaller group.*

Academic, RR also acknowledged academics' role, saying:

*Lecturers are supposed to play a role in instilling pervasive skills.*

Accounting students also shared their views on this sub-theme, Student, Carl had this to say:

*I think at university; they don't really care. They just come here to teach you. You pass, you pass, you fail, you fail. Their aim is to teach. It's up to a person how they deal with it. I think this is where your soft skills should be helping you.*

Student, Spencer explained:

*I think how these skills are sold to us also matters. You can't just tell us to pay attention to these skills because the professional body requires them.*

### **Discussion of results: Microsystem level: Role, competence, and attitudes of academics**

The findings of this study in relation to this sub-theme revealed that most academic participants were upbeat and enthusiastic about their role in teaching accounting students the necessary pervasive skills. It emerged that academics were aware of their duty in this regard and took it seriously. There seemed to be a shared view that academics strived to ensure that every student they graduate is equipped with appropriate skills such as critical thinking and problem-solving skills. However, the academic participants believed this would be better facilitated in smaller group settings, not in the current one with many students in one lecture. This finding is contrary to the findings presented by Hassall et al. (2005), Bui and Porter (2010), and Abayadeera and Watty (2014), who claimed that some academics might be unable to instil the necessary skills because they are not qualified to teach these skills.

None of the academic participants also indicated that they lacked confidence in teaching or instilling pervasive skills, as suggested by Abayadeera and Watty (2014), who concluded that some academics might lack confidence in their capacity to teach some generic abilities.

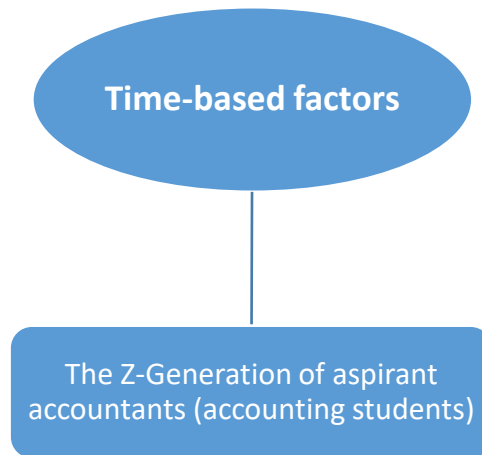
The evidence suggested that as much as most academic participants were eager about their role in supporting accounting students to develop pervasive skills, some academic participants felt

that concentrating on pervasive skills and focusing on specialized accounting skills in their lectures was not feasible. Their perceptions that it may not be entirely possible to pay an added focus on pervasive skills is consistent with the findings revealed by Milner and Hill (2008), who discovered that some accounting lecturers believe there is "no time" in the academic programme for skills development. Also showing how some academics feel about the inclusion of pervasive skills in the accounting curriculum, Jones (2010) declared that some academics claim that emphasizing pervasive skills results in a weakened accounting curriculum with less rigour in technical skills, which is why they believe pervasive skills should be prioritized less.

Some academic participants argued that their inability to inculcate the essential pervasive skills was due to the difficulty of teaching and monitoring pervasive skills, which necessitated the employment of unique teaching methodologies, which may not be viable in big class sizes. Also, it emerged that some academics might be reluctant to adapt their lecturing methods to, for example, blended learning, which is likely to improve pervasive ability growth. Methods such as blended learning were believed to be too time-consuming and impractical to introduce in a large class environment by some participants. Furthermore, some academics claimed that assessing if what they do in lectures and tutorials is enough for students to build pervasive skills is challenging.

Given the time constraints and that students often come to university as adults who should take responsibility for their skill growth, two academics believed their task should be limited to concentrating solely on technical skills. The attitudes of the two academics who felt this way confirmed the view of employers of accounting graduates in Spain and the United Kingdom. Accounting academics' attitudes/abilities, according to the employers in those situations, are one of the issues that they believe is a barrier to the development of pervasive skills in accounting students.

## Main theme 4: Time-based factors



**Figure 5.7: Main theme 4 with sub-theme**

**Source: Self-generated**

This theme was named ‘Time-based factors.’ There was only one sub-theme under this theme, as shown in Figure 5.7 above.

### *Sub-theme 1*

#### **The Z-Generation of aspirant accountants (accounting students)**

In this sub-theme, participants revealed that the generation of accounting students – aspirant accountants has changed from that of the past to today’s Z-generation. The ability of the aspirant accountants to acquire pervasive skills is believed by most participants to be linked to the generation they belong to. Although their responses did not provide specific information about this sub-theme, there was a clear consensus about how belonging to the ‘new’ generation possibly affects the development or acquisition of pervasive skills.

This is what participants had to say:

Academic, DD had this to say:

*In this generation that we're currently teaching, there is a general sense of entitlement that I have observed. Some just think they are entitled..... I am not basing this on research but my personal observations and experiences. They feel that no one is doing enough for them and that no one is giving them enough. So they are constantly looking for something more, something extra.*

He proceeded to say:

*In doing that, they do not allow themselves the opportunity to sit with the problem and, for example, solve it or to say this is hard, but this is how I am going to solve it. This is how I am going to figure it out; instead, they would rather say: 'this is hard; someone needs to help me to make it easier'.... Part of the problem is generational. (Academic, DD).*

Academic, MM also articulated:

*They just want to write and pass exams.....They just want to know what is in the exam.*

The same view may be seen in Academic, RR's statement:

*Many students wait for you to tell them that this is a 'must-do' section for the exams, and they want to focus on just that! You see, we are teaching a different generation of students. This generation learns differently from our generation. This generation doesn't like spending time on every aspect of the syllabus; they want you to get to the point. I always feel that some don't care about learning to understand; some would instead learn in order to pass. They want to get through the examinations. Sadly, that may affect their lifelong learning and their ability to link information, which may have been acquired from different subjects, so their critical thinking ability may suffer. This generation does not believe in wasting time, I tell you.*

Another academic participant, seeing that this young generation prefers communicating via online channels, pointed out:

*If you communicate online rather than personally, that affects your social skills like communication skills. (Academic, FF).*

The views of accounting students somehow confirmed the comments by accounting academics, one of such views is by Student, Spencer, who commented:

*Sometimes you can't ask, I mean....it's embarrassing. In our generation, we are not as good at this communicating thing. It's just the way we do things. We would rather send*

*an email, or WhatsApp message than speak to you face to face. That's why lecturers always complain that we don't talk during lectures. I learn more from YouTube videos because I can watch them at home. I don't like being 'stuck' in a lecture for an hour when I can learn that very same thing from a YouTube video at home in 5 minutes. That's why I always say lectures must be recorded and sent to us to watch during our own time.*

### **Discussion of results: The Z-Generation of aspirant accountants (accounting students)**

Overall, this theme demonstrated how the traditional accounting student – aspirant accountant has changed from the past. Today, some aspirant accountants would be classified as the Millennials, with many belonging to the Z-generation. The descriptive quantitative data revealed that the majority of student participants (aspirant accountants) were from the Z Generation (born between 1997 and 2012), with only a few Millennials (born between 1981 to 1996, who would have been between twenty-two and twenty-eight years in 2019 when the data was collected. The minimum and maximum ages were 18 and 28 years old, respectively, with the mean age as 21.71 years, indicating that most of the student participants were GenZers, a generation thought to be more progressive but cynical. This generation is also known for constantly searching for information, their quest for more, and their sense of entitlement.

The evidence gathered for this theme revealed that the ability of aspiring accountants to build pervasive skills may be related to their age. Even though they did not go into great detail about this, the participants' responses and comments suggested that how the z-generation learns and acquires skills could impede or allow the acquisition of certain pervasive skills and attributes. Indeed, it has been suggested that the era in which one is born and grows up impacts one's life outlook and behaviour. Be that as it may, it remains critical for these 'emerging adults,' as Arnett (2014) referred, to develop the necessary pervasive skills. To clarify, "emerging adulthood" refers to the period between the end of adolescence and the beginning of adulthood, a phase that usually corresponds to academic life (Hochberg and Konner, 2020). It has been argued that 'Emerging adults' between 18 and 29 often do not have the same duties as adults and are not as reliant on their families as adolescents (Atak and Çok, 2010).

From the data, it emerged that this cohort of accounting students was viewed as multi-taskers who are often not satisfied with what is provided to them, with most not wanting to spend too much time solving or figuring out a solution to a problem. It appeared that teaching pervasive skills to accounting students in the Z-generation, who are constantly juggling tasks, can indeed be tricky. To academic participants, this generation of accounting students need assistance or mostly rely on others to help solve their problems, a factor that may hinder their development of problem-solving skills. It was also pointed out that this generation generally wants quick and easy solutions to even more complex problems.

The academic participants also shared how this generation of accounting students does not believe in wasting time trying to figure out things and that they want easy access to information that will help them successfully perform in the different accounting subjects. This finding lends support to previous findings that revealed that South African accounting academics believe that today's students, both undergraduate and postgraduate, place a heavy premium on assessments, only caring about "what they need to know" (Cairney, 2010). A similar conclusion was reached by Magano (2020) that this cohort is noted for being impatient, disliking teamwork, being results-driven, and having a limited attention span. The evidence that suggests that some students prefer to learn via YouTube is in line with what has been revealed in other studies that Gen Z students are more interested in their classmates' experiences and prefer to receive some of their knowledge from YouTube (Schwieger and Ladwig, 2018).

Both groups of participants revealed that the current generation of accounting students aspiring to be chartered accountants are technocrats who typically prefer online communication such as emails, short message systems (SMSs), WhatsApp messages, and video calling. From a Bioecological Development Theory perspective, the online platform, more specifically the social media platform, is an environmental context that may affect the development of those in it. According to the Bioecological Development Theory, various microsystems of persons exist on each online social media platform. For instance, a student may have fellow students' microsystems, church or political organization microsystems in these environments. They could even have a complete electronic microsystem with no physical interaction with others. Given that, it would seem that their preference for non-physical communication could affect their social and pervasive skills, particularly communication skills.

This generation's preference for non-contact interactions may lead to a lack of social skills, which could negatively affect their ability to interact with others. This may also cause them to

miss out on developing the skills often developed through social interactions, such as communication skills. This finding contradicts previous findings by Oladeji (2019), who concluded that there is a positive link between social media use and students' communications skills and that through social media usage, students learn communication skills. Other previous research has, however, found that, although the Y and Z generations' technology advancements are valued in the workplace, there is a general absence of pervasive skills and professionalism within this generation (Kermis and Kermis, 2010).

## 5.8 Chapter summary

This chapter reviewed the literature on the factors that may promote or hinder the development of pervasive skills and attributes by accounting students who aspire to join the accounting training programme soon. The next chapter focuses on the role of pervasive skills in the work-readiness of accounting students.

## CHAPTER SIX

### PERVASIVE SKILLS AND WORK READINESS

#### 6.1 Introduction

The previous chapter provided a detailed literature review on the factors that affect the development of pervasive skills by accounting students who aspire to be chartered accountants in the near future. This chapter focuses on the fourth research question on the relationship between the five selected pervasive skills and accounting students' work readiness. It was deemed essential to conceptualise work-readiness as it forms the basis of the empirical component of the fourth research question, and hence, this chapter begins with that.

#### 6.2 Work-readiness: conceptualisation

The importance of securing employment upon graduating is undeniable. As many students worldwide prepare for their journey to the workplace, many hours of study and preparation are put in with the hope of achieving employability and work readiness. There are many views about what work readiness and employability are all about. For one, employability skills are described by Shafie and Nayan (2010) as job-readiness skills. Other scholars argue that the term 'employability' was coined to denote a broader sense of 'graduate-ness' that would aid in obtaining graduate-level employment (Bourner et al., 2011). According to Harvey (2005), employability is more than just gaining employment; it is also about building life skills, techniques, and experiences. While all these definitions and conceptions of employability may be valid, for this study, employability is understood as a person's ability to find employment, retain it, and, if necessary, find other employment (Hillage and Pollard, 1998).

On the other hand, graduate employability is defined as the graduate's ability to utilise his/her skills, attitudes, and ability to search for and retain a job (Nabi, 2003). According to Tsiligiris and Bowyer (2021), graduate employability comprises two components: social and human capital, as well as the graduate's personal qualities. Social capital, which is said to be impacted by a graduate's socioeconomic class, personal networks, and university reputation, connects with human capital to play an essential role in graduates' employability (Clarke, 2018; Succi and Canovi, 2020; Tsiligiris and Bowyer, 2021). Graduate employability's human capital component relates to graduates' all-encompassing skills, competencies, and employment experience (Cania, 2014; Gardner, 2017; Yorke, 2006). Given that, it would seem that personal

qualities and behaviour influence human capital. Given the preceding explanation, it appears that there is a link between pervasive skills and work readiness and that these are linked to graduates' employability.

Work readiness is a relatively new phenomenon in the literature on career development and training and is still in the early stages of development. Employability, employment readiness, workforce readiness, work preparedness, "graduateness," graduate employability, 'ready to work,' and workplace readiness are all synonyms that are used to describe work readiness in academic literature in various fields and research conducted in different populations, according to Doe (2015). Despite being a new notion, graduate work readiness is a big topic currently, but it is a contentious subject that both employers and scholars are grappling with (Kestel, 2017). It is currently challenging for all to agree on a precise meaning of work readiness and what qualities and attributes indicate a job-ready candidate (Casner-Lotto and Barrington, 2006).

Caballero et al. (2011: 52) state that "Work readiness is a concept believed to apply to all types of graduates. However, how work readiness is measured differs across w different occupational groups and contexts. Given that, various definitions of work readiness are available, one of which is provided by Doe (2015:1), who defines work readiness as "the level to which graduate students are perceived as possessing attitudes and attributes that enable them to be better prepared for success in the workforce". This study adopted a definition provided by Caballero and Walker (2010:17) that defines work readiness as "the extent to which graduates are perceived to possess the attitudes and attributes that makes them prepared or ready for success in the work environment."

Significantly, there is a growing body of evidence suggesting that the abilities that contribute to work-readiness should be expanded to include personal traits and social and emotional factors such as personality, integrity, values, dispositions, and tolerance, among others (Caballero and Walker, 2010; Smith and Krüger, 2008). Caballero et al. (2011) claim four elements in their four-factor work readiness model. The four elements are personal work characteristics, organizational acumen, work competence, and social intelligence.

Based on this discussion, it is clear that there are numerous interpretations of work readiness and what these skills should entail; however, the skills agenda has dominated the discussion.

Moreover, although different authors, through their research, have identified slightly different sets of abilities for student success after graduation, the idea that pervasive skills can assist students to achieve not just academic but also employment aspirations after graduation is gaining traction (Coetzee and Oosthuizen, 2012; Kember et al., 2007).

### 6.3 Higher Education, pervasive skills and work-readiness

Higher Education institutions, viewed through the lens of social change, are expected to produce a future workforce that is skilled and ready to contribute to economic growth. These institutions are expected to positively foster personal development and skills in students (McArthur, 2011). With that in mind, the pressure on Higher Education to produce employment-ready, professional, and flexible graduates is increasing as various stakeholders, including employers and the government (Errington, 2010), make more calls. Indeed, one of the goals of education is to meet the demands of employers and graduates in terms of employment (Williams, 2015).

A view held by some scholars suggests that the changing nature of Higher Education and the structure of graduate labour markets have increased emphasis on employability and graduate outcomes, reflecting structural problems in graduate and professional labour markets. These problems have become of greater interest to policymakers since higher education's so-called 'massification' (Keneley and Jackling, 2011). On the other hand, scholars such as Phan et al. (2020) argue that the increased emphasis on employability and graduate outcomes is a reaction to shifting graduate and employer expectations.

According to Cavanagh et al. (2015), universities should establish university curricula with input from other stakeholders such as industry employers and students to achieve graduates' work readiness. It is also argued that higher education institutions may put their reputation at risk if they produce graduates that are not work-ready (Dean et al., 2010). Indeed, some scholars claim that, in addition to the university's reputation playing a significant part in graduates' employability (Clarke, 2018), students' pervasive (soft) skills, which affect how people engage with others and contribute to professional success, also play an integral role (Robles, 2012; Tan and Laswad, 2018). Given that, it would seem that concerns about graduates' employability and readiness for work have generated arguments for introducing pervasive skills into the accounting curriculum. However, according to Bullen et al. (2018), various universities offering accounting and business-related programmes have declared or

have implicit aims related to work readiness and professional success. However, it seems that the successful implementation of these aims necessitates attention from the supply (academics) and demand (students). This view suggests that the responsibility for work-readiness should not only be left to the universities and that input or dedication from the students themselves is crucial.

In a study conducted in Malaysia, Indonesia, and Australia, Verma et al. (2018) found that the challenges contributing to inadequate graduate work readiness are diverse, including inadequate industry training; unrealistic graduate expectations; inadequate student internships; lack of clarity in terms of skill expectations; and a lack of connection between institutions of higher education and business.

In a public speech (by the then Deputy- President, Kgalema Motlanthe) in 2012, it was indicated that Higher Education is expected to instill the right skills in South Africa. Kgalema Motlanthe also attributed skills development challenges to a weakness in the education and training system, from an early childhood development system to the higher education system and professional development in the workplace. Grisel and Parker (2009) support this claim; they concluded that there is a general misunderstanding between employers and Higher Education in South Africa, stating that employers are not satisfied with the quality of graduates produced by Higher Education. They further indicated that Higher Education, on the other hand, defended itself by presenting an argument that suggests that employers should be more appreciative of the skills and qualities graduates have to offer.

From an international perspective on the matter, in the New Zealand context, employers believe higher education to be a significant role player in the development of soft skills of accounting graduates (Low et al., 2013). Additionally, from 2016 onwards, universities are expected to provide information about their graduate employability. Universities must indicate where graduates are employed and how much they earn. New Zealand's government intended to ensure that the skills developed by students in Higher Education are in line with those expected by employers when employing (Tan and Laswad, 2018).

In Australia, it is indicated that a competitive labour force has resulted in an added focus on graduate employability, thus adding to the responsibilities of Higher Education (Dunbar et al., 2016). A study conducted by Chaplin (2017) on accounting firm managers revealed that most accounting firms in Australia were currently or considering outsourcing their accounting

function, which caused a shift in the skills required, particularly from those entering the profession. That most likely contributed to the added emphasis on pervasive skills. Correspondingly, employers in the Australian context consider more generic skills than technical skills when employing accounting professionals, particularly those with good communication, teamwork, and leadership skills (Jackling and De Lange, 2009).

Similar observations in the South African context by Botes (2005) suggest a global move towards high regard for pervasive skills in the accounting profession. Even so, some would argue that employers should be playing a more active role in pervasive skills development by forging meaningful relationships with schools and universities and offering mentorship programmes to students (Selvadurai et al., 2012) as opposed to expecting accounting programmes to be solely responsible for producing the best accounting graduates who have a balanced skills sets.

All in all, the preceding debate demonstrates some of the universities' inadequacies in creating sufficiently equipped and work-ready graduates for today's job market.

#### 6.4 Concerns over work-readiness of accounting students and graduates

Employers' concerns regarding accounting graduates' readiness for work are not unusual (Jackson et al., 2013). Indeed, upon completing the academic programme, many accounting graduates enter the professional accounting workplace without understanding how multi-faceted and complex the profession is (The Pathway Commission, 2012). That could be attributable to accounting students' focus on immediate goals like graduating, securing employment, and passing the qualifying examinations. If such a view were proven valid, it would necessitate work preparation training for accounting students. Wright (2018:16) states that "Ultimately the goal of professional-readiness training is to prepare students to become leaders in their field by initiating mentoring and networking activities that reinforce core personal career objectives, effective professional training prepares students to apply the skills they have learned, coach others, and lead by example." Given that most graduates enter the professional workforce soon after graduation, such training would be beneficial since students must be work-ready at the point of graduation.

Based on available academic literature, it seems that employers of accounting graduates are less confident about their work-readiness (Jackling and De Lange, 2009). That is evident in

several research studies that have identified a lack of graduate readiness as a problem facing the accounting profession (Tempone and Martin, 2003; Hesketh, 2011; Mathabathe, 2006; Griesel and Parker, 2009). Many employers of accounting graduates have expressed concerns about the work readiness and competence of trainee accountants entering the profession (Bartel, 2018; Puteh and Hamid, 2014; Sandifer, 2018). More specifically, the concerns about employing audit juniors were disclosed in a study conducted by Lee, Lim, Yap, and Ling (2013), who revealed that many recently recruited accounting graduates are not 'job ready' despite their high academic achievement. Further compelling evidence was provided by Botes (2005) in a study that revealed that the majority of employers believed that the majority of accounting graduates are not suited for the professional workplace immediately. In fact, the concerns about the work-readiness of accounting graduates are frequently expressed in several research studies (Cord et al., 2010; Hesketh, 2011; Low et al., 2008; Mathabathe, 2006; Wye and Lim, 2009).

Professional bodies in accounting have also expressed the need for accounting graduates to be employment-ready and expect graduates to be in possession of both core discipline-specific competencies and pervasive skills (De Villiers, 2010; Helliard, 2013). Recent research studies have indicated that this issue remains a challenge despite numerous calls for more focus on pervasive skills. Recent studies still indicate that prospective employers of accounting graduates believe that young graduates still enter the job market 'not job-ready' (Hakim, 2016; Cory and Pruske, 2012). That suggests a gap between what accounting graduates offer and employers expect (Botes, 2005; Bui and Porter, 2010). Accordingly, such a gap is likely to pressure the recruits to prove that they are competent and ready for the professional accounting environment.

The general trend is that employers require accounting graduates exposed to a rounded education system that has prepared them to be team members, clear communicators who are flexible and emotionally aware (Daff et al., 2012). However, as much as accounting education has changed the curricula, some may feel that it could do more to ensure the placement of their accounting graduates with the Big 4 firms (Ming Chia, 2005). The consensus amongst researchers is that recent graduates are not ready to perform accounting-related tasks without receiving training from their employers, thus questioning their readiness for entry-level accounting employment.

Hesketh (2011) argues that the lack of graduate work preparedness is not a national challenge but rather an international one. Wye and Lim (2009) also argue that the hard skills learned at university through various courses are not complemented by possessing pervasive skills and interpersonal skills, thus creating a mismatch between what employers expect and what graduates can offer. This challenge ultimately affects accounting graduate employability. Others holding the same view also highlight the relationship between hard skills and pervasive skills by suggesting that employability skills combine pervasive skills and technical skills. For one thing, employers seem to value pervasive skills and personal characteristics more than degree subjects and results (McMurray et al., 2016) and seem to focus on what the graduates can accomplish rather than what they know (Jackson, 2010).

Employers acknowledge the importance of discipline-specific technical knowledge but argue that if these skills are coupled with pervasive skills and other interpersonal skills, the graduates would require less supervision in the workplace and would be 'work ready' (Andrews and Higson, 2008). That is what audit managers expect from newly graduated aspirant chartered accountants to demonstrate these pervasive skills with limited supervision (Kunz and de Jager, 2019). In fact, most businesses have a general assumption of the graduate's capacity to bring immediate value to the business (Jackson, 2010) and facilitate development and continuous improvement in performance through innovation (Luscombe et al., 2013). For these reasons, the stakeholders in accounting, more specifically the accounting students who aspire to be chartered accountants, seem to be concerned about the fact that employers expect the graduates to have appropriate skills and have the ability to undertake their professional tasks with minimal supervision upon entering the workplace (Andrews and Higson, 2008).

On the contrary, the accounting education literature concentrates mainly on the acquirement of separable pervasive skills, which do not provide a complete picture of the more intangible aspects of the transition to the profession, as well as what it means to be an accountant in the modern world (Jones, 2014), possibly not giving adequate attention to graduates' work-readiness. Then again, employers have expressed concerns about whether undergraduate programs produce graduates with the skills needed to facilitate their transition into the industry and professional careers (Kavanagh and Drennan, 2008), bearing in mind that "the extent to which graduates are 'work ready' is seen as indicative of their potential in terms of job performance and career advancement" (Caballero and Walker, 2010: 13). The challenges associated with transitioning from the desk to the workplace are noted in many contexts and

not isolated to particular contexts. For instance, Herren (2008) claimed that certain employees had difficulty transferring soft skills to their workplace in an American setting.

Given the challenges associated with transitioning from university to a professional work environment, many employers of accounting graduates have expressed concerns about the work readiness and competence of trainee accountants entering the profession (Bartel, 2018; Puteh and Hamid, 2014; Sandifer, 2018). The lack of work-readiness of prospective employees ought to be frustrating to employers who must sift through many graduates from higher education institutions to discover the proper fit (Doe, 2015). However, contrary to a common view shared by many scholars, Bancino and Zevalkink (2007) argue that it is unrealistic for newly graduated accountants to have all the skills expected by their employers.

### 6.5 Work readiness and pervasive skills, a possible relationship?

The association between skills and work readiness has been debated for some time. However, there is a disagreement among scholars regarding this possible association. Some scholars present an argument that suggests that this association exists. One such scholar is Grummon (1997), who argues that in terms of work readiness, students' academic achievements, skills, and knowledge have long been essential factors. Teng et al. (2019) also found a positive association between pervasive (soft) skills and student readiness for employment in the most recent literature on pervasive skills. Notwithstanding the findings of these two studies, the relationship between the pervasive skills of accounting students and their work readiness is still not well documented in academic literature.

Several views are held about the possible relationship between pervasive skills and work readiness and the employability of graduates and vice versa. One of such views suggests that work readiness affects the career self-efficacy of students and graduates. Career self-efficacy refers to an individual's belief in their ability to find employment (Coetzee and Oosthuizen, 2012). Others believe it measures a graduate's ability to enter the workplace and find employment (Wickramasinghe and Perera, 2010). Moreover, it is believed to be an individual's assessment of their abilities and performance concerning career growth and selection (Anderson and Betz, 2001). The core concern of self-efficacy is one's own belief in one's abilities (Bandura, 1977). Self-efficacy promotes individual thinking, motivation, and behaviour (Bandura, 1993). People who have a high level of career self-efficacy are argued to

be more ambitious, always have a positive attitude, and can readily envisage their success (Bandura, 1993). According to Betz and Vuyten (1997), high career self-efficacy often demonstrates individual self-confidence in the effective execution of career-related tasks that enhance the expectation of favourable consequences. According to Horn (2006), graduates with work-readiness skills have a better grasp of their employment. Some advantages of graduate work-readiness include helping the graduates better understand their careers, and promoting their morale and confidence, which increases their careers and productivity.

The importance of work conceptions in integrating the pervasive skills and knowledge for effective professional accounting work performance was explored by Sin et al. (2012). Their research looked into undergraduate accounting students' perceptions of professional work and how those beliefs influenced their opinions of their work readiness. They discovered that graduates were inadequately prepared for their careers due to erroneous assumptions about accounting work. Students with naive notions of their future professional employment have a much worse problem transitioning to employment than students with a broader and deeper understanding of accounting work. A smooth transition into the workplace contributes to more interactions in the workplace, which benefits both the employees and the organization (Borg et al., 2017).

Employers of accounting graduates regard the acquisition of pervasive skills at the university level as an essential part of the preparation of students for the workplace and their work readiness. Before entering the professional accounting environment, accounting students should be exposed to these skills (Viviers, 2016). As much as technical knowledge remains vital in the accounting profession, a shift has been noted, with pervasive skills not perceived as 'nice to haves' any longer to these skills being viewed as primary skills. Masole and van Dyk (2016) point out that graduates with technical skills cannot be assumed to be 'work ready'; in addition to field knowledge, they ought to demonstrate competencies beyond their qualifications. The academic and training programmes should be jointly responsible for producing suitably work-ready accountants (Gardner, 2015).

Caballero and Walker (2010) argue that for a graduate to be 'work-ready, they are meant to display technical skills and have to be in possession of pervasive skills and other interpersonal qualities and attributes to be in a better chance of employment. Indeed, pervasive skills and credentials, technical knowledge, attitude, and effort (Ballafkih, 2017) are among the other characteristics assessed throughout the recruitment process (Kamaliah et al., 2018). For

instance, Jackson and Chapman (2012) point out that work-readiness abilities can considerably boost an accounting graduate's employability. Pop and Barkhuizen (2010) share one such views, claiming that employability challenges are attributable to a lack of pervasive and work-readiness skills. Also, according to Nel and Neale-Shutte (2013), the perceived skills gap between labour market demands and higher education outputs is triggering a rise in graduate unemployment. Dunbar et al. (2016) suggest that the heightened focus by higher education and employers is attributable to the competitive nature of higher education and the workforce.

Pervasive skills, as non-cognitive skills, have been proven to significantly affect the probability of employment (Cobb-Clark and Tan, 2011). Wye and Lim (2009) concur and suggest that employers highly value graduates with excellent skills and values as direct beneficiaries of the utilisation of skills by graduates. Graduates must not only engage in socially and emotionally intelligent ways, but there is compelling evidence that these affective modes of operation are critical to realizing the full potential of their pervasive skills, such as critical thinking skills (Bandaranaike and Willison, 2015).

Also drawing on the relationship between pervasive skills and work-readiness is Hagar (2006), who concluded that generic (pervasive) skills have a positive effect on the graduates' readiness, and employability and found these skills to be beneficial in assisting graduates in fostering their lifelong learning and help them cope with their unpredictable futures. Indeed, employability is linked to increased opportunities for graduate employment and career success (Keneley and Jackling, 2011). Skills such as communication skills have been argued to be the most commonly utilized skills to assess employability (Osmani et al., 2015).

## 6.6 Other factors affecting the work readiness of accounting students

In addition to the factors presented above associated with work readiness, other factors have also been identified as influencing work readiness. Such factors include personal and academic characteristics (Doe, 2015), lack of understanding of the diverse nature of accounting practice (Kestel, 2017), and emotional intelligence (Masole and Van Dyk, 2016).

## 6.7 Presentation and interpretation of findings

### 6.7.1 Descriptive statistics of the Life Skills Assessment Scale (LSAS)

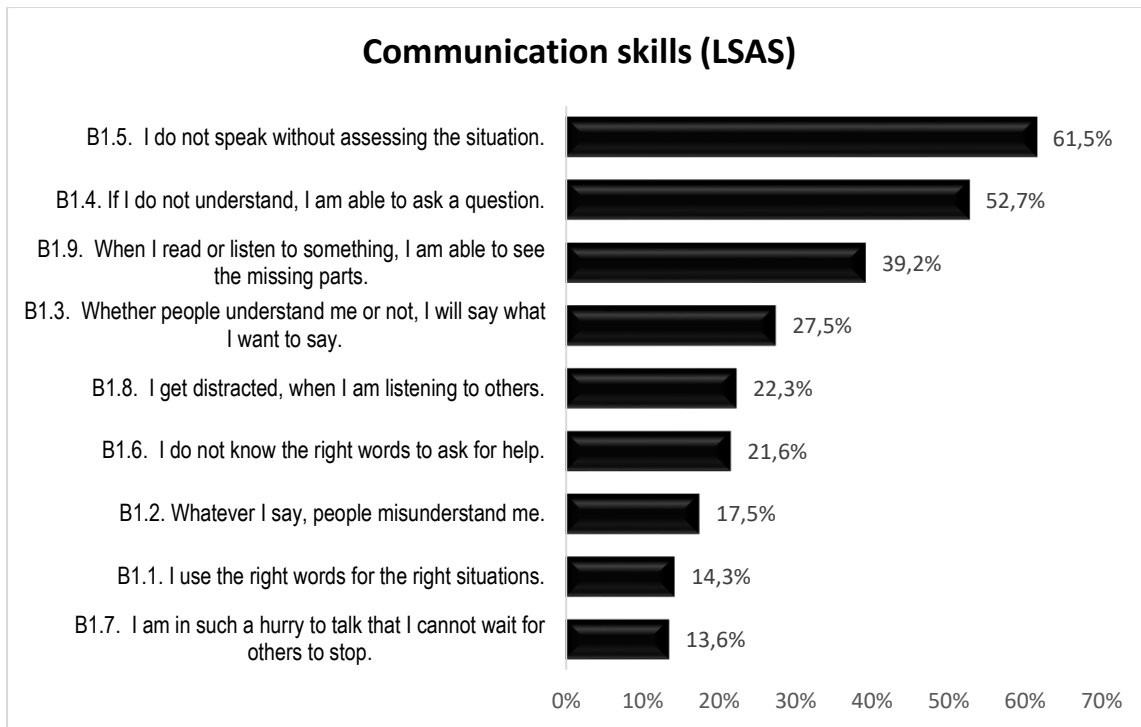
This section focuses on the descriptive statistics of the subscales of the Life Skills Assessment Scale (LSAS). Frequency counts were performed on the data collected in this questionnaire section. The maximum frequency of occurrence was determined by adding the participants' responses. The quantifiable responses to the questions are presented in percentage form. The data is presented in a table format.

#### 6.7.1.1 Communication skills

In order to evaluate the level of agreement of respondents to questionnaire items, the number that responded with “very true of me” and “always true of me” were combined and their corresponding percentages computed. The results are presented in Table 6.1 and Figure 6.1 below.

**Table 6.1 Descriptive statistics for Communication skills, a subscale of the LSAS scale**

Communication skills (LSAS)	N	Very true/Always true of me		Mean	ST.Dev.
		Frequency	%		
B1.1. I use the right words for the right situations.	273	39	14.3%	3.44	0.89
B1.2. Whatever I say, people misunderstand me.	274	48	17.5%	3.51	1.07
B1.3. Whether people understand me or not, I will say what I want to say.	273	75	27.5%	3.25	1.23
B1.4. If I do not understand, I am able to ask a question.	273	144	52.7%	3.51	1.08
B1.5. I do not speak without assessing the situation.	273	168	61.5%	3.73	1.08
B1.6. I do not know the right words to ask for help.	273	59	21.6%	3.61	1.20
B1.7. I am in such a hurry to talk that I cannot wait for others to stop.	273	37	13.6%	4.05	1.16
B1.8. I get distracted when I am listening to others.	273	61	22.3%	3.47	1.24
B1.9. When I read or listen to something, I am able to see the missing parts.	273	107	39.2%	3.00	1.12
Cronbach's Alpha statistic	0.715				



**Figure 6.1. Communication skills items' ranking shows that the dominant trait is not speaking without assessing the situation (61.5%).**

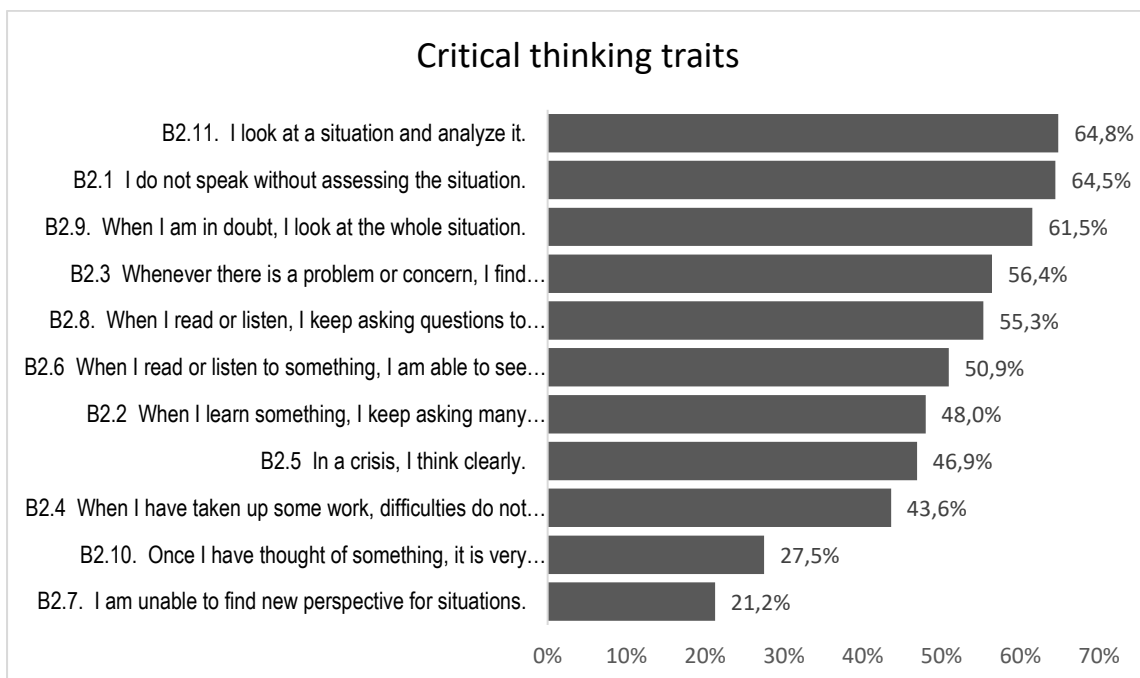
Table 6.1 and Figure 6.1 above present a comparative overview of communication skills traits that exist among respondents. Descriptive statistics for communication skills show that the dominant trait is “not speaking without assessing the situation” (61.5%). The least prevalent trait is being in such a hurry to talk that one cannot wait for others to stop (13.6%). That is a negative trait; thankfully, the percentage of respondents with this trait is small. Generally, there are positive Communication skills traits as shown by the means, which are all at least equal to 3.00 on the 5-point Likert scale (note: negatively worded traits were reverse-coded so that a high score is actually a positive outcome).

### 6.7.1.2 Critical thinking skills

The number of respondents who responded with "very true of me" and "always true of me" were combined, and their corresponding percentage was computed to assess the level of agreement of respondents to questionnaire items relating to the critical thinking subscale of the LSAS scale. The findings are shown in Table 6.2 and Figure 6.2 below.

**Table 6.2. Descriptive statistics for Critical thinking skills, a subscale of the LSAS scale**

Critical thinking (LSAS)	N	Very true/Always true of me		Mean	ST.Dev.
		Frequency	%		
B2.1 I do not speak without assessing the situation.	273	176	64.5%	3.77	1.07
B2.2 When I learn something, I keep asking many questions.	273	131	48.0%	3.40	0.93
B2.3 Whenever there is a problem or concern, I find another way.	273	154	56.4%	3.61	0.96
B2.4 When I have taken up some work, difficulties do not bother me much.	273	119	43.6%	3.22	1.12
B2.5 In a crisis, I think clearly.	273	128	46.9%	3.26	1.12
B2.6 When I read or listen to something, I am able to see the missing parts.	273	139	50.9%	3.42	1.07
B2.7. I am unable to find a new perspective for situations.	273	58	21.2%	3.39	1.09
B2.8. When I read or listen, I keep asking questions to myself.	273	151	55.3%	3.58	1.02
B2.9. When I am in doubt, I look at the whole situation.	273	168	61.5%	3.67	0.94
B2.10. Once I have thought of something, it is very difficult to change my view.	273	75	27.5%	3.12	1.07
B2.11. I look at a situation and analyze it.	273	177	64.8%	3.74	1.02
Cronbach's Alpha statistic	0.825				



**Figure 6.2. Critical thinking items' ranking shows a few dominant traits in the categories of “Very true/Always true of me” having percentages greater than 60%.**

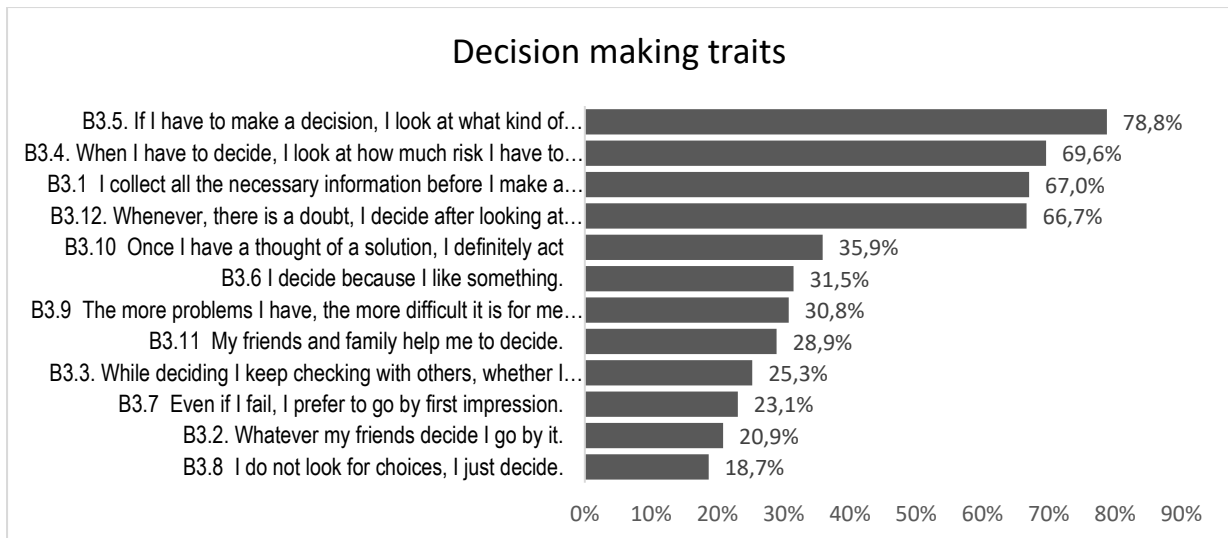
Table 6.2 and Figure 6.2 above reveal that the level of critical thinking was moderate, as evidenced by the students' replies to most of the scales' items. Students who look at a problem and analyse it were shown to have this study's most common critical thinking attribute. That is a desirable quality, especially in the fields of accounting and auditing. The students' ability to remain silent while appraising a situation was also revealed as one of the prominent critical thinking traits. The incapacity of pupils to find alternative views for problems was the least common quality; however, only 58 students had this trait.

### 6.7.1.3 Decision-making

To calculate the percentage of respondents who said "very true of me" and "always true of me" in response to questionnaire items relating to the decision-making subscale of the LSAS scale, the number of respondents who said "very true of me" and "always true of me" were added together and the corresponding percentage was calculated, Table 6.3 and Figure 6.3 below summarise the findings.

**Table 6.3. Descriptive statistics for Decision-making, a subscale of the LSAS scale**

Decision-making (LSAS)	N	Very true/Always true of me		Mean	ST.Dev.
		Frequency	%		
B3.1 I collect all the necessary information before I make a decision.	273	183	67.0%	3.73	1.06
B3.2. Whatever my friends decide, I go by it.	273	57	20.9%	3.59	1.34
B3.3. While deciding, I keep checking with others whether I am on the right track.	273	69	25.3%	3.21	1.08
B3.4. When I have to decide, I look at how much risk I have to take.	273	190	69.6%	3.85	0.97
B3.5. If I have to make a decision, I look at what kind of commitments I will have to make.	273	215	78.8%	4.06	0.86
B3.6 I decide because I like something.	273	86	31.5%	3.13	1.16
B3.7 Even if I fail, I prefer to go by the first impression.	273	63	23.1%	3.40	1.15
B3.8 I do not look for choices; I just decide.	273	51	18.7%	3.79	1.26
B3.9 The more problems I have, the more difficult it is for me to decide.	273	84	30.8%	3.23	1.21
B3.10 Once I have thought of a solution, I definitely act	273	98	35.9%	2.99	1.18
B3.11 My friends and family help me to decide.	273	79	28.9%	3.16	1.17
B3.12. Whenever there is a doubt, I decide after looking at the whole picture.	273	182	66.7%	3.83	0.97
Cronbach's Alpha statistic	0.730				



**Figure 6.3. Ranking of Decision-making items showing a few dominant traits with the categories of “Very true/Always true of me” having percentages greater than 60%.**

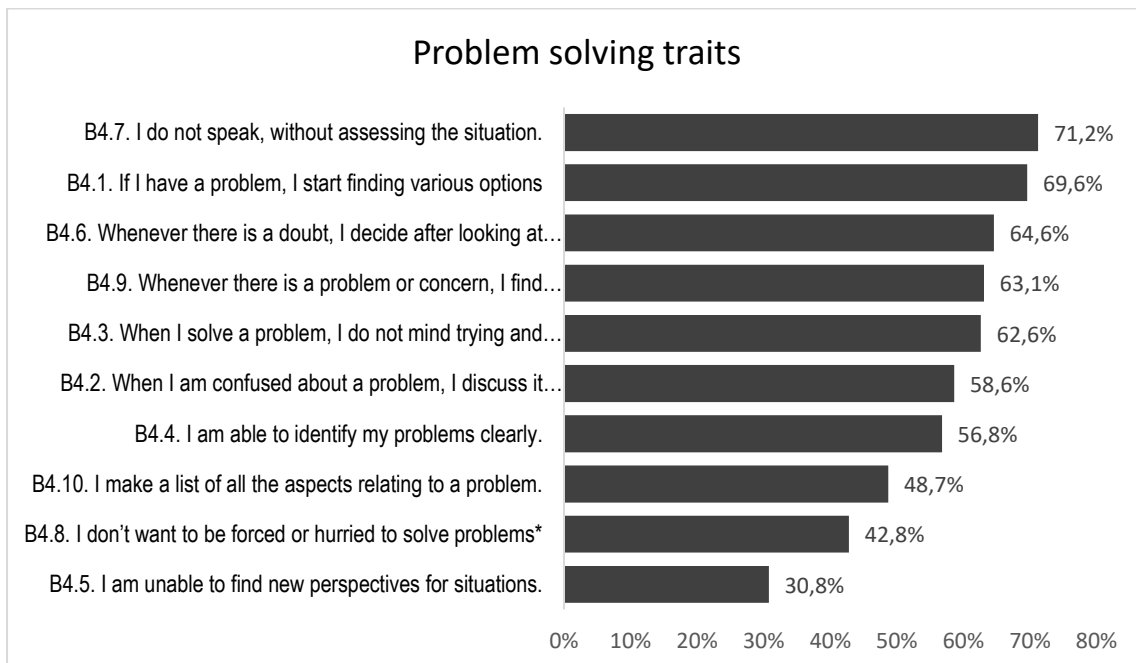
Table 6.3 and Figure 6.3 show that the students' responses to the decision-making subscale were diverse. Before making a decision, 78.8% of students said they think about the type of commitment they will have to make. That shows that the majority of students present good decision-making traits. 69.6% of students also stated that they consider the amount of risk they must accept while making a decision. This result was expected from accounting students, given that risk assessment is one of the skills accountants, particularly those working in audit contexts, should possess. However, some students revealed that they do not consider their choices when deciding, showing a poor decision-making trait. On a more promising note, only 51 students had this trait, as depicted in the results.

#### **6.7.1.4 Problem-solving**

To determine the percentage of respondents who said "very true of me" and "always true of me" in reaction to questionnaire items relating to problem-solving, the number of respondents who said "very true of me" and "always true of me" were added together and the corresponding percentage was calculated, similar to the LSAS subscales mentioned above. Table 6.4 and Figure 6.4 below report the findings.

**Table 6.4. Descriptive statistics for Problem-solving, a subscale of the LSAS scale**

Problem-solving (LSAS)	N	Very true/Always true of me		Mean	ST.Dev.
		Frequency	%		
B4.1. If I have a problem, I start finding various options	273	190	69.6%	3.83	1.02
B4.2. When I am confused about a problem, I discuss it with others.	273	160	58.6%	3.56	1.17
B4.3. When I solve a problem, I do not mind trying and failing.	273	171	62.6%	3.73	1.14
B4.4. I am able to identify my problems clearly.	273	155	56.8%	3.63	1.01
B4.5. I am unable to find new perspectives for situations.	273	84	30.8%	2.90	1.10
B4.6. Whenever there is a doubt, I decide after looking at the whole picture.	271	175	64.6%	3.73	1.09
B4.7. I do not speak without assessing the situation.	271	193	71.2%	3.89	1.01
B4.8. I do not want to be forced or hurried to solve problems*	271	116	42.8%	2.84	1.32
B4.9. Whenever there is a problem or concern, I find another way.	271	171	63.1%	3.73	0.97
B4.10. I make a list of all the aspects relating to a problem.	271	132	48.7%	3.30	1.26
Cronbach's Alpha statistic	0.788				



**Figure 6.4. Ranking of Problem-solving items showing a few dominant traits with the categories of “Very true/Always true of me” having percentages greater than 60%.**

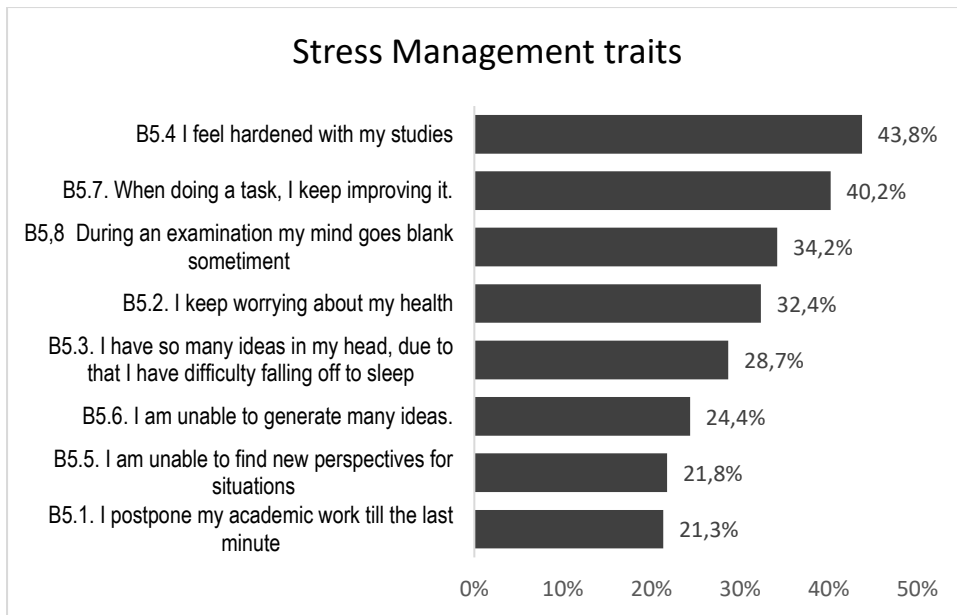
From the data presented in Table 6.4 and Table 6.4, it was noted that the problem-solving traits that accounting students have are varied. It was notable that the majority of the students (71.2%) do not speak without assessing the situation, with 69.6% of them also indicating that if they have a problem, to solve it, they start with finding various options. This shows good problem-solving abilities. Also worth noting is that many students, 171 (63.1%), indicated that they find another way if there is a problem or concern. This finding also shows the students' ability to solve problems. The least prevalent trait was the inability of the students to find new perspectives for situations.

### 6.7.1.5 Stress-management

The number of respondents who responded with "very true of me" and "always true of me" were combined, and their corresponding percentage was computed to measure respondents' level of agreement with questionnaire items relating to stress management, the last subscale of the LSAS scale. Table 6.5 and Figure 6.5 below present the findings.

**Table 6.5. Descriptive statistics for stress management, a subscale of the LSAS scale**

Stress management (LSAS)	N	Very true/Always true of me		Mean	ST.Dev.
		Frequency	%		
B5.1. I postpone my academic work till the last minute	272	58	21.3%	3.54	1.24
B5.2. I keep worrying about my health	272	88	32.4%	3.24	1.30
B5.3. I have so many ideas in my head, due to that, I have difficulty falling off to sleep	272	78	28.7%	3.24	1.21
B5.4 I feel hardened with my studies*	272	119	43.8%	2.83	1.22
B5.5. I am unable to find new perspectives for situations	271	59	21.8%	3.40	1.08
B5.6. I am unable to generate many ideas.	271	66	24.4%	3.44	1.15
B5.7. When doing a task, I keep improving it.	271	109	40.2%	2.86	1.15
B5, 8 During an examination, my mind goes blank sometimes.	272	93	34.2%	3.17	1.36
Cronbach's Alpha statistic	0.700				



**Figure 6.5. Ranking of stress-management items shows that none of the traits has high percentages in the “Very true/Always true of me” category.**

As presented above in Table 6.5 and Figure 6.5, the frequencies linked to the stress-management subscale suggest that, on average, accounting students have difficulty managing their stress. Many research participants said they were hardened by their studies (43.8 %), and some even said they had issues during examinations because their minds went blank. However, several characteristics of effective stress management were discovered. For example, 40.2% stated that when performing a task, they continue to improve it. Students who exhibit this feature are thought to be hardworking and persistent.

#### 6.7.2 Descriptive statistics of the Work Readiness Scale (WRS)

According to the Confirmatory Factor Analysis (CFA) as described in Chapter 2, the Work Readiness Scale has four factors: Personal Characteristics (PC), Organisational Acumen (OA), Work Competence (WC), and Social Intelligence (SI). The number of items on the confirmed scale is 24.

Table 6.6 below shows the descriptive statistics for each of the four WRS components. Means and standard deviations were used to describe the distribution of the sample's results. The mean of the individual factor and dimension scores were used to determine the scores. Due to some students not responding to some questions, the number of responders per item varied. The frequencies of responses for the items in each of the four dimensions of work readiness are presented in Table 6.6 below.

**Table 6.6 Descriptive analysis of the Work Readiness Scale (WRS) items**

Work Readiness Scale Items	N	Very true/Always true of me		Mean	STDev
		Frequency	%		
<b>Personal Characteristics (PC)</b>					
D1.1 I am easily offended.	272	67	24.6%	3.54	1.369
D1.2 I am overwhelmed by challenging circumstances.	272	66	24.3%	3.35	1.203
D1.3 Juggling too many things at once is one of my weaknesses.	272	80	29.4%	3.29	1.366
<b>Organisational Acumen (OA)</b>					
D1.4 I think one learns from work colleagues.	270	174	64.4%	3.81	1.188
D1.5 I think I can learn from employees who have worked in a professional accounting work environment for many years, even if they do not have an Accounting university degree	269	198	73.6%	4.00	1.111
D1.6 Learning from long serving employees is important in an accounting professional work environment.	269	200	74.3%	3.97	1.162
D1.7 I believe that understanding organizational processes is important.	270	193	71.5%	3.93	1.124
D1.8 It is important to learn as much as possible about the employer (accounting firm) if you have just joined the organisation.	270	194	71.9%	3.93	1.207
D1.9 It feel that respecting colleagues is important.	270	196	72.6%	4.09	1.149
D1.10 I believe that keeping abreast of developments in the accounting field is important.	270	206	76.3%	4.07	1.128
D1.11 I take responsibility for my decisions and actions.	270	201	74.4%	4.03	1.095
D1.12 I respect authority figures.	270	196	72.6%	4.00	1.269
D1.13 I am open to opportunities to learn and grow in the workplace.	270	197	73.0%	4.00	1.181
D1.14 I am eager to throw myself into a professional accounting work environment.	270	190	70.4%	3.91	1.114
<b>Work Competence (WC)</b>					
D1.15 I have confidence about the accounting discipline knowledge I possess.	269	182	67.7%	3.89	1.007
D1.16 I have theoretical understanding of the field/discipline of accounting.	268	173	64.6%	3.82	0.973
D1.17 I have confidence in my accounting technical competency.	268	154	57.5%	3.61	0.978
D1.18 I can cope with multiple demands.	269	197	73.2%	3.93	0.990
D1.19 I set high standards for myself and others.	269	161	59.9%	3.70	1.023
D1.20 I have the ability to analyse and solve accounting problems.	269	177	65.8%	3.79	1.114
<b>Social Intelligence (SI)</b>					
D1.21 I adapt to different social situations easily.	269	154	57.2%	3.61	1.185
D1.22 I develop relationships with people easily.	268	179	66.8%	3.89	1.049
D1.23 I have an open and friendly approach.	269	142	52.8%	3.46	1.208
D1.24 I can express myself easily.	269	121	45.0%	3.18	1.355
<b>Chronbach's Alpa=0.925</b>					

### **Personal Characteristics**

Table 6.6 above demonstrates the results of the WRS's personal characteristics component, which revealed that just 24.6% of accounting students believed they were easily offended. Only 24.3% of respondents to item D1.1 reported feeling overwhelmed by challenging circumstances. When asked question D1.3 (N=272), 29.4% of students said they had trouble balancing too many tasks simultaneously (29.4 % ). It was remarkable to see that the majority of students did not report having any of these traits, which are all undesirable attributes.

### **Organisational Acumen (OA)**

All scores were above 50%, indicating that accounting students are generally well-prepared for the workplace in terms of the characteristics that make up this work readiness component. According to the data in Table 6.6 above, most accounting students (76.3 %) believed that staying current with advancements in the accounting field is crucial. This is a satisfying discovery, given that graduates must be knowledgeable of the most recent advancements and changes in their chosen accounting profession as new employees in the workplace. This result demonstrates that most students value Continuing Professional Development (CPD), promoted both locally and globally in the accounting profession. Additionally, many students (74.4%) stated that they accept responsibility for their decisions and actions. This result is also encouraging because, in a professional setting, one must be accountable for their own decisions and actions.

### **Work Competence (WC)**

The work competence component of work readiness results, as stated in Table 6.6 above, show a positive outcome. The significant majority of accounting students (73.2%) who replied to Question D1.18 (N=269) believed they could handle a multitude of demands. Furthermore, a large percentage of students (67.7%) stated they were confident in their understanding of the accounting field. It was even mentioned by many students (65.8%) that they thought they could analyse and solve accounting problems. These results indicate that the students are very work-ready, particularly in terms of work competence.

## **Social Intelligence (SI)**

There are many different perspectives on the social intelligence trait of work readiness, according to the results reported in Table 6.6 above. However, the findings show that accounting students have a respectable level of work readiness in this area. According to the findings, only 45% of students believe they may express themselves easily. It may be inferred from this that most students (the remaining 55%) did not concur that they could express themselves easily. The fact that people frequently share office space or common areas in a typical accounting work environment, where interpersonal interactions and communication occur frequently, renders this finding unfavourable.

### **6.7.3 Inferential statistics**

#### **Effects of pervasive skills on accounting students' work readiness**

The CFA validated Work Readiness Scale (WRS) utilised in this study has 24 questions that are divided into four dimensions: Personal Characteristics (PC), Organisational Acumen (OA), Work Competence (WC), and Social Intelligence (SI). As a result, there are two levels of analysis: one for each factor individually and one for the entire set of 24 items. Using correlation analysis and multiple linear regression, this section tested the association between the pervasive skill levels of accounting students and their work readiness. After work readiness as a whole was regressed with the selected pervasive skills, each of the four WRS components was regressed separately. The results are presented below:

#### **6.2 Effects of pervasive skills on the accounting students' overall work readiness**

The table below, Table 6.7, shows the correlation analysis results: Pervasive skills and overall work readiness as well as correlation results: Pervasive skills and the four dimensions of work readiness.

**Table 6.7 Correlation results: Pervasive skills and work-readiness**

Pearson's Correlation			Pervasive skills					
			Communication Skills	Critical Thinking Skills	Decision-making skills	Problem-solving skills	Stress Management Skills	
Pervasive skills	Critical Thinking Skills	Corr	0.533**					
		p-value	0.000					
		N	255					
	Decision-making skills	Corr	0.580**	0.563**				
		p-value	0.000	0.000				
		N	252	255				
	Problem-solving skills	Corr	0.486**	0.733**	0.569**			
		p-value	0.000	0.000	0.000			
		N	257	260	256			
	Stress Management Skills	Corr	0.305**	0.500**	0.409**	0.411**		
		p-value	0.000	0.000	0.000	0.000		
		N	253	255	251	257		
Work Readiness	Work Readiness-Personal Characteristics	Corr	0.465**	0.307**	0.555**	0.335**	0.102	
		p-value	0.000	0.000	0.000	0.000	0.100	
		N	261	264	260	266	260	
	Work Readiness-Organisational Acumen	Corr	0.358**	0.584**	0.419**	0.560**	0.344**	
		p-value	0.000	0.000	0.000	0.000	0.000	
		N	260	262	259	264	258	
	Work Readiness-Work Competence	Corr	0.277**	0.645**	0.459**	0.603**	0.488**	
		p-value	0.000	0.000	0.000	0.000	0.000	
		N	258	260	257	262	256	
	Work Readiness-Social Intelligence	Corr	0.392**	0.554**	0.447**	0.527**	0.338**	
		p-value	0.000	0.000	0.000	0.000	0.000	
		N	258	260	257	262	256	
	Overall Work readiness	Corr	0.417**	0.703**	0.521**	0.669**	0.438**	
		p-value	0.000	0.000	0.000	0.000	0.000	
		N	258	260	257	262	256	
	**. Correlation is significant at the 0.01 level (2-tailed).							

### **Interpretation: Overall work readiness and pervasive skills**

All of the correlation coefficients in Table 6.7 were positive and significant, indicating that pervasive skills and their dimensions are positively associated with overall work readiness. This finding suggests that when each of the selected pervasive skills rises, so does the overall level of accounting students' work readiness. Critical thinking notably showed the most association ( $r=0.703$ ,  $p, 0.000$ ,  $N =260$ ), with stress management showing the least, even though there was a positive association with overall work readiness ( $r=0.438$ ,  $p, 0.000$ ,  $N=256$ ). However, a correlation does not always imply that pervasive skills have a causal effect on work readiness. As a result, regression analysis was used to determine whether the accounting students' pervasive skills can explain a variation in their work readiness level. The regression analysis results between the selected pervasive skills and work readiness are shown in Table 6.8 below.

### **Correlation and regression analysis of one factor (of work readiness) at a time**

As stated previously, given that the WRS has four factors (scales), it was decided to segregate the correlation and regression analysis for each of the four work-readiness factors in this study. The goal was to determine which of the four factors of work readiness is most associated with pervasive skills and to determine the best combinations of work readiness that the selected pervasive skills could forecast. The results are also shown in Table 6.7 above.

### **Interpretation**

The results above in Table 6.7 show that all the selected pervasive skills are positively associated with all the factors of work readiness (Personal Characteristics, Organisational Acumen, Work Competence, and Social Intelligence).

### **Personal Characteristics (PC)**

The correlation analysis results shown in Table 6.7 above reveal that all the selected pervasive skills have a positive association with the accounting students' work readiness (Personal Characteristics). There were varying degrees of association noted, however. Decision-making showed the most association among all the pervasive skills, with a moderate positive correlation ( $r=0.555$ ,  $p, 0.000$ ,  $N=260$ ). Communication skills also showed a moderate positive association with this trait of work readiness ( $r=0.465$ ,  $p, 0.000$ ,  $N=261$ ). Stress management

skills were shown to have a low positive association with work readiness - Personal Characteristics ( $r=0.102$ ,  $p, 0.102$ ,  $N=260$ ).

### **Organisational Acumen (OA)**

The results presented in Table 6.7 show that all the selected pervasive skills have a positive relationship with work readiness (Organisational Acumen), but the relationship's extent varied from moderately positive to low positive. Critical thinking skills showed the most association among the pervasive skills, even though that association is moderate positive ( $r=0.584$ ,  $p, 0.000$ ,  $N=262$ ).

### **Work Competence (WC)**

A strong positive correlation was revealed between critical thinking skills ( $r=0.645$ ,  $p, 0.000$ ,  $N=260$ ) and problem-solving skills ( $r=0.603$ ,  $p, 0.000$ ,  $N=262$ ) with the accounting students' work competence in Table 6.7. A positive but weaker relationship was found between communication skills ( $r=0.277$ ,  $P, 0.000$ ,  $n=258$ ) and the students' work competence.

### **Social Intelligence (SI)**

Table 6.7 above also presents the correlation analysis results showing the associations between the pervasive skills of accounting students and their Social Intelligence (SI) factor of work readiness. The results show that all the pervasive skills positively connected with the accounting students' work readiness (Social Intelligence) but in varying degrees. The highest level of association was found between critical thinking skills and work readiness (Social Intelligence) despite the relationship being moderate positive ( $r=0.554$ ,  $p, 0.000$ ,  $N=260$ ). Problem-solving followed very closely, with a moderate positive association ( $r=0.527$ ,  $p, 0.000$ ,  $N=262$ ). The least but still positive association was found between stress-management skills and work readiness (Social Intelligence) as shown by  $r=0.338$ ,  $p, 0.000$ ,  $N=256$ .

However, a correlation does not always imply that pervasive skills have a causal effect on work readiness. As a result, multivariate regression analysis was used to determine whether the accounting students' pervasive skills can explain a variation in their work readiness level. There are no serious collinearity problems since the variance inflation factors (VIF) are all below 10. The multivariate analysis results between the selected pervasive skills and work

readiness are shown in Table 6.8 below. Following that, the multivariate statistics are provided for each factor (scale) of work readiness (Table 6.9).

The multivariate regression model results below are based on regressing the response vector consisting of the 4 work-readiness subscales on the five pervasive skills scales.

The multivariate response vector is thus given by  $Y$ , where

$$Y = \begin{bmatrix} \text{Personal Characteristics} \\ \text{Organisational Acumen} \\ \text{Work Competence} \\ \text{Social Intelligence} \end{bmatrix}$$

The multivariate regression model tests results are presented in the table below (next page):

**Table 6.8 Multivariate Tests: Pervasive skills and overall work-readiness**

Multivariate Tests: Response vector is $Y = \begin{bmatrix} Y_1 \\ Y_2 \\ Y_3 \\ Y_4 \end{bmatrix} = \begin{bmatrix} \text{Personal Characteristics} \\ \text{Organisational Acumen} \\ \text{Work Competence} \\ \text{Social Intelligence} \end{bmatrix}$		Value	F	Hypothesis df	Error df	p-value.	
<b>Covariate</b>							
	Intercept	Pillai's Trace	0.619	89.812 <sup>b</sup>	4.000	221.000	0.000
		Wilks' Lambda	0.381	89.812 <sup>b</sup>	4.000	221.000	0.000
		Hotelling's Trace	1.626	89.812 <sup>b</sup>	4.000	221.000	0.000
	Roy's Largest Root	1.626	89.812 <sup>b</sup>	4.000	221.000	0.000	
CommSkills		Pillai's Trace	0.115	7.179 <sup>b</sup>	4.000	221.000	0.000
		Wilks' Lambda	0.885	7.179 <sup>b</sup>	4.000	221.000	0.000
		Hotelling's Trace	0.130	7.179 <sup>b</sup>	4.000	221.000	0.000
		Roy's Largest Root	0.130	7.179 <sup>b</sup>	4.000	221.000	0.000
CritThinkSkills		Pillai's Trace	0.166	10.994 <sup>b</sup>	4.000	221.000	0.000
		Wilks' Lambda	0.834	10.994 <sup>b</sup>	4.000	221.000	0.000
		Hotelling's Trace	0.199	10.994 <sup>b</sup>	4.000	221.000	0.000
		Roy's Largest Root	0.199	10.994 <sup>b</sup>	4.000	221.000	0.000
DeciMakSkills		Pillai's Trace	0.163	10.749 <sup>b</sup>	4.000	221.000	0.000
		Wilks' Lambda	0.837	10.749 <sup>b</sup>	4.000	221.000	0.000
		Hotelling's Trace	0.195	10.749 <sup>b</sup>	4.000	221.000	0.000
		Roy's Largest Root	0.195	10.749 <sup>b</sup>	4.000	221.000	0.000
ProblSolvSkills		Pillai's Trace	0.117	7.352 <sup>b</sup>	4.000	221.000	0.000
		Wilks' Lambda	0.883	7.352 <sup>b</sup>	4.000	221.000	0.000
		Hotelling's Trace	0.133	7.352 <sup>b</sup>	4.000	221.000	0.000
		Roy's Largest Root	0.133	7.352 <sup>b</sup>	4.000	221.000	0.000
StressMan		Pillai's Trace	0.103	6.346 <sup>b</sup>	4.000	221.000	0.000
		Wilks' Lambda	0.897	6.346 <sup>b</sup>	4.000	221.000	0.000
		Hotelling's Trace	0.115	6.346 <sup>b</sup>	4.000	221.000	0.000
		Roy's Largest Root	0.115	6.346 <sup>b</sup>	4.000	221.000	0.000
<b>Control variable</b>							
YEARSOFEMPL OYMENT		Pillai's Trace	0.044	2.519 <sup>b</sup>	4.000	221.000	0.042
		Wilks' Lambda	0.956	2.519 <sup>b</sup>	4.000	221.000	0.042
		Hotelling's Trace	0.046	2.519 <sup>b</sup>	4.000	221.000	0.042
		Roy's Largest Root	0.046	2.519 <sup>b</sup>	4.000	221.000	0.042
<i>Design: Intercept + CommSkills + CritThinkSkills + DeciMakSkills + ProblSolvSkills + StressMan + YEARSOFEMPLOYMENT</i>							
<i>b. Exact statistic</i>							

## **Interpretation**

Table 6.8 above shows the multivariate regression analysis results for all the five pervasive skills and work readiness. The results show that all five pervasive skills have a significant impact on work-readiness in general (all p-values < 0.05 for Pillai's Trace, Wilks' Lambda, Hotelling's Trace and Roy's Largest Root), that is when all work-readiness scales are considered together as a multivariate response vector with the pervasive skills as predictors. These findings demonstrate that pervasive skills could highly influence accounting students' work readiness. These results together with the correlation results show that the chosen pervasive skills are linked to work readiness. Pervasive skills, in other words, have a favourable influence on work readiness.

Effects of predictors on individual subscales of Work Readiness (Univariate tests) are presented in the table below, Table 6.9 (next page).

**Table 6.9 Multivariate Tests: Pervasive skills and individual subscales of work readiness**

Dependent Variable	Parameter	B	Std. Error	t	p-value
Work Readiness- Personal Characteristics	Intercept	-3.219	.390	-8.248	.000
	CommSkills	.018	.005	3.849	.000
	CritThinkSkills	-.005	.007	-.753	.452
	DeciMakSkills	.043	.007	6.361	.000
	ProblSolvSkills	.003	.006	.433	.666
	StressMan	-.014	.005	-2.934	.004
	YEARSOFEMPLOYMENT	.017	.070	.242	.809
Work Readiness- Organisational Acumen	Intercept	-3.818	.368	-10.368	.000
	CommSkills	-.001	.004	-.322	.748
	CritThinkSkills	.028	.007	4.178	.000
	DeciMakSkills	-.001	.006	-.122	.903
	ProblSolvSkills	.024	.006	3.873	.000
	StressMan	.006	.004	1.469	.143
	YEARSOFEMPLOYMENT	-.182	.066	-2.758	.006
Work Readiness-Work Competence	Intercept	-4.191	.330	-12.717	.000
	CommSkills	-.013	.004	-3.330	.001
	CritThinkSkills	.032	.006	5.260	.000
	DeciMakSkills	.006	.006	1.148	.252
	ProblSolvSkills	.022	.005	3.959	.000
	StressMan	.015	.004	3.840	.000
	YEARSOFEMPLOYMENT	-.014	.059	-.240	.811
Work Readiness- Social Intelligence	Intercept	-3.738	.370	-10.100	.000
	CommSkills	.003	.004	.764	.446
	CritThinkSkills	.023	.007	3.370	.001
	DeciMakSkills	.008	.006	1.233	.219
	ProblSolvSkills	.014	.006	2.275	.024
	StressMan	.005	.004	1.205	.230
	YEARSOFEMPLOYMENT	.062	.066	.939	.349

**Interpretation**

Table 6.9 above shows the multivariate regression results for each of the factors (scales) of work readiness. The results show that communication skills (CommSkills) have a significant effect on Personal Characteristics (B=0.018, t=3.849, p-value=0.000) while critical thinking skills (CritThinkSkills) have no significant impact on Personal Characteristics (B=-0.005, t=-0.753, p-value=0.452). However, the results show that critical thinking skills have a significant positive impact on Organisational Acumen (OA) (B=0.028, t=4.178, p-value=0.000) while

communication skills have no significant impact on Organisational Acumen ( $B=-0.001$ ,  $t=-0.322$ ,  $p\text{-value}=0.748$ ).

In terms of Work Competence (WC), communication skills were shown to have no impact ( $B=-0.13$ ,  $t=-3.330$ ,  $p=-3.330$ ). Critical thinking skills, on the other hand have a significant positive impact on this factor of work readiness ( $B=0.032$ ,  $t=5.260$ ,  $p\text{-value}=0.000$ ). Stress management skills were also shown to have a positive impact on work competence ( $B=0.015$ ,  $t=3.840$ ,  $p\text{-value}=0.000$ ).

Critical thinking skills were shown to have a significant positive impact on the Social Intelligence (SI) factor of work readiness to Social Intelligence ( $B=0.023$ ,  $t=3.370$ ,  $p\text{-value}=0.001$ ).

When all response variables are considered together as a multivariate vector, the results will show that both communication skills and critical thinking skills have a significant effect on the response vector.

## 6.8 Discussion of findings

From the presentation and interpretation of the findings, the key findings that emerged were as follows:

The findings of the correlation analysis revealed a positive link between all the selected pervasive skills (communication skills, critical thinking, decision-making, problem-solving, and stress management skills) and the work readiness of accounting students. The findings of this study are in line with research findings that suggest that graduates with merely technical skills cannot be assumed to be "work-ready" and that they must exhibit competencies beyond their qualifications in addition to field knowledge (Masole and Van Dyk, 2016). The regression analysis results to determine the effect of the selected pervasive skills on the accounting students' overall work-readiness revealed that all the pervasive skills had an impact on work readiness overall. The employers' calls for accounting graduates to attain pervasive skills as an essential component of their work-readiness and that accounting students should be introduced to these skills before joining the professional accounting profession (Viviers, 2016) are supported by the relationship between selected pervasive skills and accounting students' work readiness as revealed by the findings of this study. That is because employers believe critical thinking, problem-solving, communication abilities, and other talents are beneficial to

employees' performance and retention in accounting and business occupations (Strauss-Keevy and Maré, 2014).

These results suggest that if accounting students improve their pervasive skill sets, their work readiness will improve, resulting in a favourable outcome. Employers, higher education institutions, and professional bodies in the accounting profession would all gain from this favourable outcome. In terms of employers, Wye and Lim (2009) agree, claiming that employers value graduates with excellent skills and values as direct beneficiaries of their use of skills. That is because all stakeholders in accounting strive to deliver accounting graduates who are work-ready and ready to add value to the organizations in which they end up being employed.

The study's findings on the relationship between pervasive skills and work readiness are consistent with earlier findings indicating pervasive skills and work readiness are linked. To be precise, the study's findings confirm those of Teng et al. (2019), who established a favourable relationship between pervasive (soft) skills and student employment preparedness in the most recent literature on pervasive skills.

*When the results were analysed as per the four factors of work readiness, the results varied per factor. The results per factor demonstrated that:*

The correlation analysis focused on the relationship between the selected pervasive skills and the accounting students' work-readiness in terms of **personal characteristics** revealed a moderate positive relationship specifically with decision-making and communication skills. The importance of decision-making skills on the students' work readiness was an interesting finding. Indeed, a smooth transition into work depends on meaningful interactions in the workplace, and personal characteristics play a critical role in such interactions. Using one's personal characteristics to interact meaningfully in the workplace benefits both individuals and the organization (Borg et al., 2017). The study findings suggest that those entering the workplace have to decide to interact with others around them, which is a decision one takes. That also means that should one decide not to allow themselves to interact with others in the workplace, senior staff can convince them to interact and integrate more. The multivariate regression analysis results revealed that communication skills (CommSkills) have a significant effect on Personal Characteristics ( $B=0.018$ ,  $t=3.849$ ,  $p\text{-value}=0.000$ ). Surprisingly, critical

thinking skills (CritThinkSkills) were determined to have no significant impact on Personal Characteristics ( $B=-0.005$ ,  $t=-0.753$ ,  $p\text{-value}=0.452$ ). These results shed new light on pervasive skills' role in one's ability to interact and integrate into the workplace using one's personal characteristics.

A moderately positive correlation between critical thinking and problem-solving skills was found through correlation analysis which examined the relationship between the selected pervasive skills and accounting students' work readiness regarding **organisational acumen**. Stress management skills and this aspect of students' work readiness showed the weakest correlation. The multivariate regression analysis showed that critical thinking skills have a significant positive impact on organisational acumen. That is a significant finding. This finding shows that the organisational acumen component of the work-readiness of accounting students might be improved by strengthening their levels of the selected pervasive skills, more especially communication skills.

Concerning the students' **work competence** and the accounting students' levels of the selected pervasive skills, critical thinking and problem-solving skills showed strong associations. Indeed, everyone, especially those aspiring to enter dynamic fields like accounting, should cultivate critical thinking and problem-solving skills. These findings suggest that the role of critical thinking and problem-solving skills in the work-readiness of accounting students is significant. With specific reference to critical thinking skills, there has been an added call by employers over the past few decades for more critical thinking skills from accounting graduates. Employers value critical thinking abilities since they make accounting graduates more competitive (Aman and Sitotaw, 2014).

For one thing, accounting graduates, upon entering the workplace, need to trust that their acquired knowledge (gained in the academic programme) is sufficient, and in addition, they need to be able to apply that knowledge in the work context. In addition, graduates ought to be able to apply critical thinking and problem-solving skills to collect, analyse and report financial information. Focusing on problem-solving skills, the findings of this study about this aspect are in line with research showing employers, in general, would like to see a strong focus on problem-solving skills among graduates, as indicated by Politsinsky (2015). Also, as previously pointed out by Sumaryati et al. (2020), the ability to obtain information, analyse and

arrange it, present it, and accurately assess it can be enhanced through developing problem-solving abilities in accounting graduates.

According to the findings on the association between the selected pervasive skills and the work-readiness of accounting students in terms of their **social intelligence**, which would be helpful when adjusting to the job, critical thinking skills are crucial. That is because an almost strong positive association was revealed between the two variables. Problem-solving skills were also found to have a moderate but positive relationship with the student's social intelligence, a critical component of their ability to adapt and express themselves in a work environment. That is an interesting finding, mainly because it has been shown that many accounting graduates find it challenging to adapt to the professional environment after leaving university (Heang et al., 2019). These results imply that accounting students stand a chance of enhancing their social intelligence, which supports better adaptation to the workplace if they enhance their critical and problem-solving skills.

The conceptualisation of work readiness and a literature review relevant to the fourth research objective, which investigates the relationship between pervasive skills and accounting students' level of work readiness, were presented in the section above. The findings from the quantitative data gathered to support this research objective were also presented, analyzed, and discussed.

## 6.9 Chapter summary

The literature relevant to the fourth research question was examined in this chapter. The fourth research objective sought to investigate the association between the selected pervasive skills levels of accounting students and the work readiness level of accounting students using correlation and regression analysis. The next chapter addresses the last research question in this study that focuses on the link between the selected pervasive skills and accounting students' academic performance.

## CHAPTER SEVEN

# PERVASIVE SKILLS AND THE ACADEMIC PERFORMANCE OF ACCOUNTING STUDENTS

### 7.1 Introduction

The previous chapter explored the relationship between pervasive skills and the work-readiness of accounting students. The fifth and final research objective, which seeks to investigate the relationship between pervasive skills and accounting students' academic performance in the professional degree, is the primary focus of this chapter. For the purpose of this study, academic performance is based on the average marks obtained in three Financial Accounting modules in the professional accounting degree.

### 7.2 Academic performance

Academic performance is the most prevalent indication of academic achievement and is one of the essential criteria for determining academic goals (Benitez, 2017). Additionally, a solid academic performance among students signals a well-functioning academic environment (Gupta and Pasrija, 2016). Then again, it is essential to realise that academic performance is defined differently between universities and schools and between countries around the world. Given the wide range of operational descriptions, Kirschner and Karpinski (2010) argue that the construct of academic performance may not be precisely defined or quantified. This study subscribed to a definition of academic performance provided by Spinath (2012), who defines academic performance as an outcome that demonstrates how far a person has achieved specified goals that were the focus of activities in instructional or educational environments.

It has been suggested that not only is academic performance the most prevalent indication of academic achievement, but it is also one of the most critical criteria in determining educational goals (Benitez, 2017). Hence, understanding the elements that influence students' success in the courses they have enrolled in should assist university management in more efficiently allocating financial, human, and infrastructure resources to improve teaching quality and student performance (Ballester, 2012).

Academic performance, which may also be seen as the result of students' assessment efforts, can be classified as low or poor, average (acceptable) or good (excellent). According to

Abdullahi (2013), poor academic performance is any performance that falls short of the desired standard. There are many benefits associated with excellent academic performance. Good academic performance by a student may enhance their prospects of employment. For instance, in the workplace, a prospective employee's academic performance is one of the most important factors to consider when hiring (Mendoza and Hontiveros, 2017).

Several research studies have been conducted on the factors contributing to student academic performance. Generally, student marks (averages) are mainly used as benchmarks for measuring academic performance. To study students' academic performance and success, many universities across the globe study their throughput rates. Although this practice is a fair indicator of academic performance and success, other factors, such as dropout and financial factors, may contribute to poor throughput rates.

Many higher education institutions continually explore various interventions designed to enhance students' academic performance, including accounting students. Such interventions include re-curriculation to add more focus on skills acquisition by students, as this is believed to be a factor that may enhance academic performance, and the early identification of academically at-risk students. Also, staff development courses offered to academic staff, provision of support services to students (including counselling services for students facing academic stress), better access to infrastructure and resources such as library services and an internet connection, and others are valuable interventions. All the interventions are designed to ensure that students are equipped with skills (both technical and pervasive skills and attributes) necessary to cope with the demands of the workplace, and their work readiness and that students achieve the best possible academic performance.

Despite the many interventions to enhance students' academic performance, international and local universities still report high student dropout rates, low throughputs, and poor academic performance by students. This concern may put a financial strain on universities, particularly those publicly funded, relying mainly on government subsidies, some of which depend on throughput rates, as in most South African universities.

More specifically, the high failure rate of first-year accounting students at higher education institutions has been a significant cause of concern globally, including in South Africa (Barnes et al., 2009). In a quest to understand what affects the academic performance of accounting students, many variables have surfaced in academic studies that are believed to predict

accounting students' academic performance. These variables will be discussed in this chapter. More specifically, this chapter will explore the relationship between the selective pervasive skills and the academic performance of accounting students aspiring to be chartered accountants soon.

### 7.3 Variables linked to academic performance

Research focusing on academic performance across many fields, including accounting, is extensive. Some research studies reveal that students' performance in accounting subjects may be unsatisfactory, which has resulted in many discussions, interventions, and research studies targeting this issue. The main focus of many studies is to find the variables associated with academic performance in accounting.

Many variables have been identified and claimed to be associated with academic performance. For instance, Sibanda et al. (2015) identified hard work, dedication, and commitment as factors influencing academic success. On the other hand, Geiser and Santelices (2007) claim that admission points, school background, and students' socio-economic status affect students' academic performance. Also, in as much as study hours outside lectures would appear to affect students' performance, according to Nonis and Hudson (2010), there is no link between study hours and academic performance. However, there is a strong association between students' study habits and academic performance.

Other research studies conducted by Yigermal (2017), Nyikahadzoi et al. (2013), and Talib and Sansgiry (2012) identify factors such as academic performance in school, cognitive ability, and motivation as determinants of academic performance at the university level. Additionally, other factors identified through research include student satisfaction (Martirosyan et al., 2014); gender (Barrow et al., 2009); learning styles (Tan and Laswad, 2015); mental health (Wyatt et al., 2017); distance learning (Vieira et al., 2018); marital status (Potokri, 2011) and age and student profile (Papageorgiou, 2017).

Teaching and learning styles were also identified as variables that could affect students' performance. It has been indicated that learning styles are a factor that affects students' performance because using inappropriate learning styles could make recalling class content more difficult. In terms of teaching styles, in previous research studies, the performance of students was believed to be enhanced as a result of the implementation of a student engagement teaching approach known as inter-teaching, which cross shifts the behaviour of students from

passive to engaged (Saville et al., 2005; Sturmey et al., 2015). With this in mind, Ndinechi and Obidile (2013) suggest that the lecture approach, also known as the teacher-centred method, which mainly turns students into passive learners, should not be employed exclusively in teaching accounting courses. Student-centred teaching approaches are believed to improve students' performance in accounting courses as opposed to teacher-centred approaches. Student-centred approaches or methodologies include guided discovery methods, problem-based methods, guided discovery methods, and inquiry-based methods (Attard et al., 2010).

To researchers in educational psychology, a students' academic performance is viewed as a product of their learning, and data on individual learning rates is collected. Individual performance is also thought to be influenced heavily by motivation and mood and the environment, fatigue, and illness, and these factors may offer a relatively accurate assessment of how much he is learning (Seif, 2009).

#### 7.4 Pervasive skills and academic performance: a possible relationship?

Many studies have suggested that the differences in student academic performance result from their varied individual characteristics (Jonassen and Grabowski, 1993), as shown in the research studies reviewed above. One such characteristic that has recently gained increased attention is a possible association between pervasive skills and academic performance, as will be discussed in this chapter.

Indeed, the variables in the literature review presented in the previous section may be valid contributors to academic performance; some scholars have argued that pervasive skills may influence the academic performance of university students. To point out, a study conducted by Chamorro-Premuzic et al. (2010) concluded that outstanding academic achievement, the desired employment after graduation, and developing skills were all linked to academic performance. In fact, it has been argued that many of the features that make up pervasive skills categories pertain to individual differences that are known to affect academic performance in as much as these may change very little during the years of higher education (Chamorro-Premuzic and Furnham, 2003).

Also, soft skills, according to some scholars, should be linked to academic achievement; hence there would be a required prelude to content-based academic knowledge learning (Barrie,

2006). Furthermore, a study conducted by Abdi and Davoudi (2015) discovered that problem-solving, decision-making and effective communication abilities significantly affect academic performance. That suggests that students' academic achievement will be enhanced with increased degrees of pervasive skills. Another study that reported similar results was conducted by Savoji et al. (2010), who also discovered an association between pervasive (or life) skills and academic performance. Two scholars in the field present another take on this issue. Both Kavanagh and Drennan (2008) and McLean (2010) suggest that accounting students frequently graduate without having learned or had to apply pervasive skills to any significant level as part of the accounting programme at university. This insight may hint at the explanation for some students' poor academic performance in accounting programmes. Above that, this insight creates an association between pervasive skills and academic performance.

According to research conducted in a local context, South Africa, there are strong relationships between students' personal characteristics and skills and academic performance (Barac, 2012; Steenkamp, 2012). With particular reference to individual skills, one such association is revealed by Killen et al. (2003) and De Jager (2014), who revealed that time management skills, along with other variables, affected students' academic performance. The same skill, time management, was also an aspect that was argued to influence academic performance (Du Plessis et al., 2005; Müller et al., 2007). These findings suggest that time management is a good predictor of academic performance. According to Taylor\* and Bedford (2004), students must develop effective time management skills and find more imaginative ways to use their study time by engaging in relevant learning activities to succeed in university education. More specifically, efficient time management skills, avoiding procrastination, prioritizing tasks, and managing study times were reported to be the main predictors of academic performance than ability in a study conducted by West and Sadoski (2011) to predict the students' academic performance at the higher education level.

The discussion that will follow next will be limited to the association between the selected pervasive skills and academic performance.

#### 7.4.1 Communication skills and academic performance

Various studies have been conducted on the effect and influence of communication skills on academic performance. However, many of these studies do not focus on academic performance in accounting but on other fields.

It has been stated that successful learning cannot occur if students do not have strong communication abilities (Fakeye and Ogunsiji, 2009). This view suggests that communication skills play a critical role in students' academic success. By all means, a student with poor interpersonal communication skills may struggle to communicate and acquire knowledge, as discussion is at the heart of today's teaching and learning activities (Yahaya and Ramli, 2009). Other scholars concur, further emphasizing that students with good communication skills have a better chance of succeeding academically (Sharifirad et al., 2012). Another study that also demonstrated the critical role of communication skills on academic performance was undertaken by Eiselen and Geysers (2003), who contrasted the performance of accounting students who were deemed to be high 'achievers' with that of those deemed to be 'at risk' of not succeeding in the accounting module. Their study looked into the differences in language proficiency between students who were 'achievers' and students 'at risk' in the accounting module and found results that showed that the 'achievers' had stronger communication skills than the 'at risk' students. Such an observation supports the proposal that good communication skills such as listening, writing or oral communication is fundamental to academic success.

A study by Mahmud (2014) also revealed that variations in communication skills' competency could affect academic performance in various ways. For one, students can learn the appropriate skills by speaking successfully, and their ideas, thoughts, and projects can be shaped by their ability to communicate effectively. Additionally, according to Khan et al. (2017), communication skills can assist students to understand the content being taught, which could be facilitated by the academic's effective communication skills that support them in conveying messages in a more straightforward and easily understood manner. When students understand what is being taught, the result is the attainment of cognitive learning objectives.

Communication skills are thought to impact one's capacity to interact with others in an academic setting. Interactions in learning environments benefit students because they allow them to learn, ponder on what they are learning and have learned, and communicate their understanding and knowledge. Indeed, regardless of what is taught, communication skills can

help students better understand what they know and can do and enable academics to provide advice and feedback, resulting in increased academic performance (Mahmud, 2014).

#### 7.4.2 Critical thinking skills and academic performance

Many scholars have pointed out the importance of critical thinking skills and have called for these skills to be prioritised in all learning environments and activities (Elder and Paul, 2010). That could result from the association of these skills with several benefits, particularly in teaching and learning environments and in personal development. In fact, according to Elder and Paul (2010), one can acquire information, comprehension, insights, and abilities in any given body of information by using critical thinking.

Academics are believed to be capable of teaching students critical thinking skills that will support them in facing future challenges in life (Suryanti, 2017). In fact, there is widespread agreement among academics that fostering deep and higher-order thinking skills in university students should be a central goal of higher education (Ghanizadeh, 2017). Additionally, others contend that critical thinking skills must be emphasized in learning activities because they have a favourable effect on a range of aspects, including problem-solving (Kirmizi et al., 2015), decision-making (Turan et al., 2019), and even academic performance (Assaly and Smadi, 2015; D'Alessio et al., 2019).

Various arguments pointing to an association between critical thinking skills and academic performance have been presented in several studies. Regarding these two constructs, it has been said that critical thinking is a level of intellectual ability that students must meet to participate fully and constructively in their academic, individual, and social life (Scriven and Paul, 2004). Others even suggest that overall academic achievement in higher education is related to developing critical thinking abilities (Ghanizadeh, 2017). Also pointing out the positive contribution of critical thinking skills, Wicaksana et al. (2020) argued that introducing critical thinking components to a course or module has a 64 percent effective contribution to improving students' academic accomplishment, which is a positive impact on student's academic achievement.

Safitri et al. (2018) argue that critical thinking is linked to academic success, particularly in the cognitive processes of analyzing, evaluating, and synthesizing. These skills are also said to

help students reach higher levels of thinking by encouraging them to think critically (Adams, 2015). Students go through six processes to become competent critical thinkers, according to Elder and Paul (2010). A student progresses from being a beginner thinker to being a challenged thinker, practicing thinker, advanced thinker, and finally accomplished thinker through these processes. According to these authors, all students should strive to progress through these six phases as critical thinkers.

In terms of how critical thinking skills affect learning, it has been stated that these skills provide students with a detailed and broader comprehension of concepts they have got to learn (Dwyer et al., 2014) and also enable them to examine varied information in order to come to a logical deduction (Shehab and Nussbaum, 2015). Additionally, students who practice critical thinking are more likely to ask questions that reflect their deeper grasp of a subject (Assaly and Smadi, 2015). However, according to Elder and Paul (2004), a fundamental prerequisite of critical thinking is the ability of thinkers to be aware of and responsible for their thinking process and construct fair criteria for monitoring and evaluating their thinking.

#### 7.4.3 Decision-making skills and academic performance

It has been argued that decision-making and problem-solving abilities are not simply the consequence of development and socialisation but also natural processes that occur throughout a person's life (Rai, 2016). Accordingly, modern educational systems aim to teach the ability to face situations with responsibility and make the best decisions possible. In general, decision-making has become increasingly important in today's challenging times, in the globalized world, in the face of fast-changing economies, and ever-increasing competition (Walter, 2010).

One cannot overemphasize how critical it is for university students to develop decision-making skills because, during university years, decisions that impact and shape a person's path through life are taken, and these decisions impact one's sense of one's self-existence and achievement. At the same time, in many instances, students are denied the opportunity to actively engage in decision-making from an early age (Jeruto and Kiprop, 2011). As a result, some students enrol in their parents' preferred institutions and begin their academic journeys with a low sense of motivation, likely leading to poor performance (Mati et al., 2016). It has been argued that getting students involved in decision-making relating to their studies, whether they prefer the learning to be undertaken or how they would want to be disciplined, positively influences their

academic achievement (Jeruto and Kiprop, 2011). In fact, decision-making skills are crucial for students in goal-setting and achievement thereof (Aminu and Gali, 2012).

Setting attainable goals is critical to human progress and accomplishments in life. Executing a set of attainable goals is predicated on the ability to make effective decisions that lead to achieving those goals. Goals have a role in success; hence, they must impact students' academic achievement (Tanglang and Ibrahim, 2015). Indeed, decision-making is at the core of planning: decisions on specific courses of action must be made for plans to be formed and executed (Vedpuria, 2021). These viewpoints suggest that decision-making abilities and academic performance are linked and that effective and successful decisions are valued and advantageous, whereas failure results from a lack of decision. That may be because students with good decision-making skills can translate their knowledge, attitudes, and ideas into practical abilities (Bala et al., 2017). Similar findings have been documented in other investigations. For example, it was discovered that in distant learning situations, there is a significant positive relationship between students' effective decision-making skills and their undergraduate academic performance (Tanglang and Ibrahim, 2015).

#### 7.4.4 Problem-solving skills and academic performance

Given the contemporary accounting profession and the changes that have taken place in the accounting profession, such as the increased use of technology and globalisation, it has become necessary for those intending to enter the profession to develop critical skills such as problem-solving in order to meet the demands of the 21<sup>st</sup>-century accounting profession. Upon completing the academic programme, accounting graduates must be able to work in a dynamic and frequently fast-changing environment. If accountants and auditors are to deal with intricate and unstructured issues, they must possess these skills (Jones and Davidson, 2007). By all means, in order to be productive in new or complex contexts, students must develop problem-solving skills.

Problem-solving skills, however, are not only beneficial in the workplace. These skills are necessary to demonstrate during the academic programme. Indeed, problem-solving has long been recognized as the most crucial component of human behaviour, and students' capacity to problem solve has been argued to have a considerable impact on their academic performance (Gupta and Pasrija, 2016).

Problem-solving skill was demonstrated to be a strong predictor of study behavior by Salami and Aremu (2006). According to Pindar (2000), effective problem solvers have a higher internal locus of control, employ more problem-focused coping methods, have less illogical ideas, and are more assured in their decision-making abilities. That allows them to outperform inefficient problem solvers in the class. Indeed, efficient problem-solvers were reported to have better interpersonal skills and were academically superior in performance (Salami and Aremu, 2006).

#### 7.4.5 Stress-management skills and academic performance

Academic stress is “mental distress with respect to some anticipated frustration associated with academic failure or even unawareness to the possibility of such failure” (Lal, 2014:123). This study subscribes to a definition of academic stress by Bisht (1980), who defines academic stress as a reflection of one’s perception of the individual’s academic frustration, academic pressure, anxiety, and conflict. Previous research studies have identified many factors that may increase academic stress, pressure to meet academic demands, time management worries, concerns over grades (Olpin, 1997), academic workload, and fear of failing (Hemamalini, 2016).

Students can explore various stress management techniques in managing academic stress. These techniques include building a network of friends to communicate academic pressures, family support, and engaging in physical exercise. Having the ability to identify stressors is also just as important to stress management as the other techniques. Planning and prioritising academic demands is also a technique that may prove helpful in stress management (Sharit and Salvendy, 1982). Despite the availability of these options, in a study of university students undertaken by Hailu (2020), it was discovered that many students in their second and third years of study had weak stress management. According to the results reported by Banerjee et al. (2019), ineffective stress coping strategies result in fatigue and psychological distress, with academic failure as one of the outcomes. Frazier et al. (2019) also concluded that students who indicated that stress influenced performance had lower academic achievement, felt higher stress levels, and had lower coping self-efficacy, resistance, and support systems. While that may be true, other scholars hold a different view about academic stress and its effect on students' academic performance. Another angle on this debate suggests that stress, in the right balance, may be a constructive force in our lives. For instance, Yasmin et al. (2020) state that

a certain degree of stress is unavoidable and beneficial to learning as it encourages the students to focus and concentrate on their studies instead of engaging in other activities. Often overlooked is that most of the stress that students experience can be viewed as serving a constructive purpose, regardless of the source (Bukhsh et al., 2011). That is because the authors believe that stress can occur as a result of both positive and negative situations and that the tension that students experience as they begin tests for which they have studied is very different from the stress experienced by students that have not taken the time to study (*ibid*). Given the two different views, it seems that it's essential to differentiate between stress that encourages students focus on their studies and stress that makes it nearly impossible for them to study effectively.

According to Sinha (2014), in academic life, organisation is crucial for managing stress in terms of stress management skills. Thus, keeping academic notes organized, handing in assignments in a timely manner, and staying abreast of all deadlines could significantly decrease academic performance stress. Comparatively, Bukhsh et al.'s (2011) research revealed that some students deal with academic stress by releasing tension through humour, accepting what they cannot change, and effective time management. Macan et al. (1990) concur with this view and argue that proper time management is among the most successful stress-relieving approaches. At the same time, Vijayalakshmi (2016) revealed that students with personal and social resourcefulness have enhanced adaptive functioning and tend to suffer less anxiety than those lacking such qualities. Given these views, it would seem that some students rely on their soft skills to deal with the stresses associated with their academic life.

Overall, the above literature has addressed several issues that point to a relationship between the selected pervasive skills and students' academic performance in general. In contrast, there is comparatively less research examining how students' pervasive skills (communication skills and critical thinking affect their academic performance in subjects in the accounting discipline.

## 7.5 Academic performance in Accounting

Accounting is a language used to communicate financial information to the users of financial statements to aid in the economic decision-making of the users. Accounting has three main branches, financial accounting, cost accounting, and management accounting (financial management). Academic performance in Accounting has received inadequate local research

attention, particularly student performance at the higher education level. Internationally, studies on this subject have revealed several factors as determinants of academic success in Accounting. Students' performance in accounting courses, including financial accounting, auditing, tax, and management accounting, is frequently investigated to identify the factors that contribute to desired student performance. However, the general observation is that accounting students tend to battle with these subjects, leading to high failure and dropout rates.

One of the accounting courses students find challenging is Management Accounting. Because of the unique vocabulary and concepts, management accounting courses are challenging to learn (King and McConnell, 2010). Since management accounting focuses on internal and operational reports and does not have precise standards like Financial Accounting, students find it more challenging. To succeed in management accounting, which entails qualitative and quantitative data, students are expected to apply what they have learned to a real-world problem (Mahmud et al., 2019).

Accounting students' academic performance is of concern to several stakeholders in accounting, including higher education institutions, professional bodies, students, academics, and others. Consequently, this issue has received attention in many published research locally and internationally. Accordingly, good academic performance is one of the critical objectives of accounting education. In general, employers (or training officers) assess whether a student can practice as a trainee accountant based on their academic performance. Students' academic performance in accounting is also of concern to the academics lecturing in accounting programmes, parents, and students themselves.

In the local context, the academic performance of accounting students, some of whom are from previously deprived groups (Barnes et al., 2009), is a concern to stakeholders in accounting, including universities, academics, employers, students, parents, professional bodies, and the public in South Africa. Given that, various interventions have been put in place to improve the performance of all accounting students across all races and backgrounds. In South Africa, one of the interventions designed to attract more students to enter the accounting profession and assist students from previously disadvantaged backgrounds, SAICA introduced the Thuthuka programme in 2002. SAICA launched the Thuthuka Bursary Fund (TBF) program to help black and coloured learners pursue a career in chartered accountancy. This fund covers all study

costs, including tuition, meals, books, allowances, accommodation, and academic and administrative support initiatives to help students succeed academically (Sadler and Erasmus, 2005). The Schools of Accountancy in universities across the country agreed to provide additional enrichment sessions to bursary students as part of the initiative. Additionally, the TBF recipients (students) were requested to volunteer to participate in the pilot study's reinforcement tutorials as part of this arrangement (*ibid*).

Internationally, the concern about students' academic performance in accounting programmes is an issue of interest to several stakeholders, just like in the local context. Accordingly, various scholars have conducted research to determine the academic and non-academic factors associated with accounting students' academic performance in such degree programmes. One such study was conducted by Maksy and Zheng (2010), who looked at factors that influence students' performance in accounting and advanced auditing in the United States. That study found a significant link between students' performance and their part-time employment in non-accounting jobs, their long working hours in such jobs during the week, and even their massive amount of commitments during the academic period. This finding is concerning, given that some students work and study simultaneously. However, contradictory findings were reported in a study conducted in Australia, which found no link between students' employment and work hours and academic performance (Rudkin and De Zoysa, 2007). The results of these two studies suggest that there are varying views about how part-time employment affects the performance of accounting students.

Also suggesting other variables that affect students' academic performance in accounting programmes, Guney (2009) revealed that age is associated with the student's performance and that the fewer the students in a class, the greater the degree of quality of the students' work. That study also revealed that students' financial and personal concerns might contribute to their poor performance (*ibid*). Coupled with that, in another study, Wijewardena and Rudkin (1999) discovered a positive and significant association between the students' class attendance, their perception of the significance of accounting, and passion in this area of study and the students' academic performance. Comparatively, more recent studies revealed that academic support (De Jager, 2014) and class attendance (Steenkamp, 2012), in addition to study habits (Fouche, 2017), are factors that have been recognized as having an impact on accounting students' academic achievement (De Jager, 2014).

On the other hand, other studies reveal that exposure to certain subjects before entering higher education has a bearing on the accounting students' academic performance. For instance, Al-Twajry (2010) reported that prior-university accounting education may significantly impact the performance of accounting students in advanced management accounting and that students' mathematical capabilities have a significant favourable impact on the academic performance of students in the same course. Although the study may be dated, the findings of Gul and Cheong Fong (1993), who reported similar findings, stated that a direct association between accounting students' academic successes and their personal qualities, mathematic and accounting levels, and prior knowledge of accounting are exciting and somewhat justify why mathematics is an entry requirement into most accounting degree programmes. However, a matric pass in accounting is not an entry requirement into some accounting programmes in South Africa.

Gender differences have also surfaced in some research debates as a factor that may predict accounting students' academic performance in accounting courses. For instance, gender differences in student performance in Accounting at a Botswana higher education institution were explored by Wally-Dima and Mbekomize (2013). Their study revealed that female students outperform their male counterparts in terms of academic performance. The explanation was that females generally performed better since they had to work even harder to break into the historically male-dominated accounting profession.

Again, other scholars believe that accounting students' learning styles or approaches also impact their academic performance (Tan and Laswad, 2015). In the same way, Elias (2005) studied the correlation between accounting students' academic performance and surface and deep learning approaches. The study's findings showed a positive association between students' performance and their use of the deep learning approach, whereas there is a negative relationship between students' performance and their usage of a surface learning approach.

The discussion above has identified many factors associated with the performance of accounting students in accounting programmes. From the review, it is clear that a number of factors can affect accounting students' academic performance. With this intention, this research question sought to explore if a relationship exists between the selected pervasive skills and accounting students' academic performance.

## 7.6 The selected pervasive skills and academic performance in Accounting

This literature review section looked into the relationships between selected pervasive skills and accounting students' academic performance in accounting courses. A thorough review of the literature on how pervasive skills affect student academic performance determined that there is very little research on how pervasive skills, particularly decision-making and problem-solving skills, affect student success in accounting disciplines.

### 7.6.1 Communication skills and academic performance in accounting

Communication skills are among the vital non-technical competencies expected of accounting graduates (Byrne and Flood, 2003). In particular, employers perceive these skills as crucial competencies (Fan and Lin, 2017). Indeed, these skills have been said to affect accounting students' academic performance and their wider employability (Graham et al., 2010).

According to Mahmud (2014), differences in communication skill competency can boost academic performance in various ways. For one, perceived communication skills, as opposed to actual communication ability, which is believed to be part of a student's self-esteem and whether they are secure when engaging verbally, are influenced by their self-confidence (Ramírez, 2010). Similarly, self-confidence is argued to positively impact the student's willingness to put in more determination to accomplish better academically (Mahmud, 2016). Additionally, Goldfinch and Hughes (2007) state that a lack of confidence in communication skills is linked to low academic performance.

It has also been argued that the failure to communicate effectively among students may also pose issues with the discussion of views and opinions during a lecture, leading to a misinterpretation of learning materials, thus disrupting student learning. Indeed having the appropriate communication skills would enable effective engagement with the accounting curriculum.

With specific reference to written communication skills, it has been said that language plays a massive role in one's communication ability (Barratt et al., 2011). Provided that, it may be assumed that an accounting student who has difficulty understanding the language of instruction and business in the immediate context may have challenges academically and professionally. English is known as the worldwide language of business in South Africa, as it is in most other countries worldwide, particularly in commerce. According to Chauvot (2010), English has become the primary language of communication in various industries, including

financial services, and it has also become a basic competence required of a workforce. In fact, in many aspects of life in South Africa (including academic settings), English is widely accepted as the *lingua franca* (De Wet and Wolhuter, 2009:359). In many contexts, including the local, competency in the English language is critical as most communication in business is through this language. For this reason, poor communication skills were reported as deficient by employers in students, particularly students with English as an additional language (EAL).

As way back as 1996, Wong and Chia (1996) discovered a link between English proficiency and first-year Financial Accounting academic performance. More recently, Garkaz et al. (2011) found similar results, who reported a strong connection between listening and reading comprehension skills and student achievement. Eiselen and Geysers (2003), on the other hand, differentiated between accounting students who were perceived as “achieving” and “at-risk” based on their performance in the first year of study in accounting in order to test their language aptitude and noted that the students “at-risk” had considerably inferior vocabulary as compared with the “achieving” students. A study by Barratt et al. (2011) also concluded that enhanced written communication skills are associated with improved academic performance in accounting. However, some scholars report opposing results. For instance, Drennan and Rohde (2002) did not find an association between the performance of accounting students and language, more specifically their nature of English, whether it was a first or second language but did note that those who had a first language, English performed better at a more advanced level in accounting. Again, Aidoo-Buameh and Ayagre (2013) did not find a correlation between English proficiency and academic performance in accounting.

Given the importance of communication skills in the accounting profession, various interventions have been introduced in accounting qualifications worldwide to improve accounting students’ written and oral communication skills. These interventions aim to improve these skills because of their association with exemplary academic achievement and professional performance. For one, integrating a research project into an undergraduate accounting programme was deemed necessary to enhance the written communication skills of accounting students (Tarasovich and Boyer, 2013). Another intervention proposed by Matherly and Burney (2009) is a peer-review-based approach writing programme designed to enhance accounting students' written communication skills. Similarly, (Liu et al., 2019) suggested that introducing written assignments in accounting programmes would improve students' writing self-efficacy.

### 7.6.2 Critical thinking skills and academic performance in accounting

It has become clear that accountants and those considering a career in accounting need to display crucial abilities, including critical thinking. That is owing to the nature of accountants' work, which is inherently complicated. Thus, accounting graduates are expected to have excellent critical thinking abilities when they enter the field; thus, they should be cultivated in the academic programme. The academic programme should focus on building critical thinking abilities in aspiring accountants, which ideally should benefit both the professional and academic environments. That is because critical thinking encourages independent thinking, autonomy, and rational decision-making in action and thought (Latif et al., 2019). Critical thinking in some demanding and more practical disciplines like accounting, according to Thompson and Washington (2015), entails acquiring, analysing, comprehending, conceptualization, and reasoning, the same skills accounting students, should apply in order for them to advance in their field.

The need for accounting students aspiring to enter the accounting profession to develop critical thinking skills has attracted several research studies and debates about how the students could be supported in developing these crucial skills. These interventions are sparked by the concerns that some accounting students may be experiencing difficulty with their studies due to inadequate critical thinking skills. For example, according to Nentl and Zietlow (2008), accounting students may understand and perhaps even apply data, but they seldom examine, consolidate, or assess information. Accordingly, various interventions have been introduced to support accounting students' acquisition and demonstration of critical thinking skills. These interventions include using teaching and learning strategies and approaches believed to support critical thinking, such as using complex case studies and business simulations.

One of the studies conducted with this issue in mind was undertaken by Springer and Borthick (2004). In their study, they explain the reason and configuration of business simulation episodes to develop higher-order thinking skills required for success in accounting to encourage accounting students to transition from knowing to thinking in financial accounting. To emphasize, Karbalaei (2012) argues that to obtain a more excellent grasp of the world in which they live and achieve academically, academics must provide students with the opportunity to struggle with concepts, uncover meaning, recognize perspective, and utilize

logic in arguments. That supports a claim made by Tsui (2002) that fostering higher-order cognitive abilities, such as critical thinking in students, can enable them to function more efficiently in various situations. Also, given that critical thinking improves one's attention and observation skills when working on a project, it will aid in the development of the capacity to identify significant parts in a text or other information instead of being side-tracked by less relevant content (Adedoyin and Okere, 2017).

A study by Kealey et al. (2005) revealed that pervasive skills such as critical thinking influence accounting students' academic performance in a degree programme. In a more dated study, Jenkins (1998), using the Watson Glaser Critical Thinking Appraisal (WGCTA) revealed similar findings that accounting students who had elevated levels of critical thinking skills performed better than those who had lower scores, as measured by the Grade Point Average (GPA).

#### 7.6.3 Decision-making skills and academic performance in accounting

Decision-making is one of the functional skills thought to be more technical by certain scholars (De Lange, 2000). There seems to be minimal research on decision-making skills and academic achievement, particularly academic performance in accounting, globally, let alone locally. However, because of the declared link between decision-making skills and critical thinking skills (Turan et al., 2019), which is associated with academic performance in accounting, these skills could enhance accounting students' academic performance.

Some scholars believe career development programmes should help students improve their decision-making skills (Rivera and Schaefer, 2009).

#### 7.6.4 Problem-solving skills and academic performance in accounting

Internationally and locally, many accounting programmes are designed to equip accounting students with the necessary technical knowledge and skills. One of those skills is problem-solving. Thus, academics in these programmes explore teaching methods believed to enhance the ability of the students to solve problems, more specifically, unstructured problems. Unstructured problems are defined as those requiring solutions built from the information provided (Pascarella and Terenzini, 1991). An individual's ability to solve problems is thought to be influenced by how they interpret information, particularly unstructured problems.

In the local context, the SAICA Competency Framework promotes the focus on skills such as problem-solving. Many universities offering these accredited accounting programmes adopt teaching, learning, and assessment approaches associated with acquiring skills such as problem-solving. The interventions are intended to divert attention away from conventional accounting teaching. Conventional accounting instruction frequently produces graduates knowledgeable about the field but who lack analytical, communication, opinion-giving, problem-solving, and other critical skills (Hsu et al., 2013). Then again, some scholars believe that some accounting programmes in South Africa are still leaning toward fully guided instruction in teaching accounting students, which has drawn scrutiny because this attention to detail is focused on preparing professional accounting students to succeed in the SAICA qualifying examinations and typically results in students being unable to think beyond the limitations imposed by accounting instruction, leading to their incapacity to tackle unique problems (Coetzee and Schmulian, 2012; Van der Merwe et al., 2014).

It is argued that individuals with better problem-solving skills are significantly faster and more effective in processing complex concepts in accounting, but that this skill may not give them any significant benefit in structured problems when compared to individuals with lower ranks of this problem-solving skill (Bonner, 1994; Libby and Luft, 1993).

#### 7.6.5 Stress-management skills and academic performance in accounting

Previous research has indicated that the inability to manage stress at university may cause deterioration in academic performance and may also result in psychological distress (Dwyer and Cummings, 2001). Given that, it would not be surprising that when academic stress levels are high, some accounting students find it challenging to ultimately undertake academic responsibilities such as lecture tasks and tutorials assigned to them.

Steenkamp (2012) found that stress-management skills are positively associated with academic performance in accounting courses concerning the relationship between stress management skills and academic performance in accounting subjects. Misra and McKean (2000) back this up by claiming that once academic stress is viewed negatively and becomes excessive, it has a negative impact on a student's health, academic performance, and emotional well-being.

The section above provided the literature review for the fifth research objective of the present study. This research objective answered research question five, which sought to determine how

pervasive skills influenced accounting students' academic performance in the professional degree. The following section presents the findings concerning this research question. After that an interpretation and discussion of these findings is provided and lastly, concluding remarks.

### 7.7 Presentation and interpretation of findings

The following analysis addresses the fifth research question, which reads:

*Are levels of pervasive skills related to accounting students' academic performance?*

This question's objective was to empirically determine the significance of an individual's pervasive skills such as communication skills, critical thinking, problem-solving, decision-making, and stress-management skills aptitude for student performance in accounting, given the increased importance of these skills and attributes in the accounting profession.

**Table 7.1 Correlations of pervasive skills and academic performance**

Pearson Correlation			Communication skills	Critical thinking skills	Decision-making skills	Problem-solving skills	Stress-management skills
Pervasive skills	Communication skills	corr					
		p-value					
		N					
	Critical thinking skills	Corr	0.533**				
		p-value	<0.001				
		N	255				
	Decision-making skills	Corr	0.580**	0.563**			
		p-value	<0.001	<0.001			
		N	252	255			
	Problem-solving skills	Corr	0.486**	0.733**	0.569**		
		p-value	<0.001	<0.001	<0.001		
		N	257	260	256		
	Stress-management skills	Corr	0.305**	0.500**	0.409**	0.411**	
		p-value	<0.001	<0.001	<0.001	<0.001	
		N	253	255	251	257	
Average Academic Performance	Corr	0.209**	0.438**	0.237**	0.391**	0.481**	
	p-value	0.001	<0.001	<0.001	<0.001	<0.001	
	N	262	265	261	267	261	
**. Correlation is significant at the 0.01 level (2-tailed).							

The results presented in Table 7.1 above reveal that when considered individually using correlation analysis, the five pervasive skills variables are correlated to academic performance ( $p$ -values $<0.05$ ). Table 7.1 shows that all correlation coefficients are positive, demonstrating that pervasive skills and their dimensions are linked to overall academic performance. That suggests that when the level of pervasive skills improves, so does overall academic performance. Stress management ( $r=0.481$ ,  $p<0.001$ ,  $N=261$ ) was the skill that showed the most association among the five selected pervasive skills, followed by critical thinking skills ( $r=0.438$ ,  $p<0.001$ ,  $N=265$ ). However, it is essential to check if the five variables adjust for each other's effect on average academic performance using regression analysis.

**Table 7.2 Regression of academic performance on pervasive skills with control variables**

Dependent Variable: Average Academic Performance	Coefficients		t	p-value	Collinearity Statistics	
	B	Std. Error			Tolerance	VIF
	55.223	9.535	5.792	0.000		
Communication skills	-.013	.037	-.363	0.717	0.654	1.529
Critical thinking skills	.120	.056	2.140	<b>0.034</b>	0.407	2.459
Decision-making skills	-.103	.053	-1.944	0.053	0.576	1.738
Problem-solving skills	.093	.050	1.865	0.064	0.451	2.218
Stress management skills	.221	.036	6.184	<b>0.000</b>	0.772	1.295
<b>Control variables</b>						
Age	-0.880	0.316	-2.787	<b>0.006</b>	0.654	1.529
Self-study hours	0.046	0.029	1.592	0.113	0.407	2.459
Grade 12 academic overall performance	0.062	0.064	0.960	0.338	0.576	1.738
Lecture attendance frequency	-0.967	1.061	-.911	0.363	0.451	2.218
$R^2=0.397$						

The  $R^2$  score indicates how much the independent variable can explain the dependent variable. From the data presented, it is evident that there are no serious collinearity problems since the variance inflation factors (VIF) are all below 10.

The regression analysis results presented in Table 7.2 show that when the pervasive skills variables are considered together, only critical thinking skills ( $B=0.120$ ,  $t=2.140$ ,  $p\text{-value}=0.034$ ) and stress-management skills ( $B=0.221$ ,  $t=6.184$ ,  $p\text{-value}<0.001$ ) significantly affect accounting students' academic performance. Then again, overall findings, as shown in the model, suggest that the selected pervasive skills can explain 39.7% of this model's variation in academic performance. This means that since this regression model accounts for 39.7% of the variation in accounting students' academic performance ( $R^2=0.397$ ), other factors (that account for the other 60.3%) drive accounting students' academic performance to a more considerable extent than pervasive skills. That shows that students' academic performance is complex and may be influenced by various factors.

## 7.8 Discussion of findings

The correlation analysis demonstrated that all of the study pervasive skills are positively connected with accounting students' academic performance, as shown in Table 7.1. The two skills from those selected for this study that showed the most association were critical thinking and stress management skills. The discussion will cover all the selected pervasive skills but mainly focus on critical thinking and stress management.

### **Communication skills and academic performance in accounting**

The results obtained from the correlation analysis revealed that communication skills are significantly associated with accounting students' academic performance. That finding was not surprising given that communication skills such as reading, writing, listening, and even presentation are used all the time in academic settings. In accounting, like many other disciplines, academic content is provided through various modes of delivery and through supporting materials such as textbooks, lecture notes, and handouts. It is not difficult to see how having the right skills to read and understand the written content provided through the supporting materials would benefit the student in mastering the content. Given that in most universities, including the research site, the academic language is English, it would seem then that proficiency in the academic language would enhance learning. That was an interesting

finding, given that accounting is viewed by many as a technical field that does not require good communication skills.

The results of this study revealing that a relationship between communication skills and academic performance exists is in line with what was reported by Mahmud (2014) that good communication skills could boost the academic performance of students. In many instances, when a student is confident in their communication skills, they tend to have little or no communication apprehension. That perceived communication skill is critical for their confidence to speak up and ask questions if they do not understand what is being covered. Ramirez (2010) has the same opinion, believing that perceived communication abilities, rather than actual communication ability, are influenced by a student's self-confidence, which is thought to be part of their self-esteem and whether they are satisfied with themselves when communicating verbally. Similarly, self-confidence is seen to have a favourable impact on a student's willingness to work more to improve academically (Mahmud, 2014). Furthermore, Goldfinch and Hughes (2007) state that a lack of confidence in communication abilities is associated with poor academic performance.

Some accounting courses, such as Cost and Management Accounting, require good communication skills such as reading. That is because of the nature of the subject and the constant use of case studies in the subject. It comes as no surprise then that a student has to read and comprehend a case study in order to analyse it successfully. Accordingly, while reading ability does not ensure good academic performance, it does pose a barrier to effective academic performance (Bohlmann and Pretorius, 2002).

### **Critical thinking and academic performance in accounting**

The results from the correlation analysis revealed that critical thinking skills are associated with the accounting students' academic performance, which suggests that critical thinking skills influence the academic performance of accounting students. Given this finding, critical thinking appears to be a critical success factor in an accounting programme. That could be because of the nature of accounting courses, most of which require higher-order thinking.

Other studies have also shown that critical thinking is associated with academic performance, especially in the cognitive processes of analysing, evaluating, and synthesising (Safitri et al., 2018). Wicaksana et al. (2020) also found a similar pattern of results, suggesting that

incorporating critical thinking components to a course or module has a 64 percent effective impact in improving students' academic accomplishment, which positively affects students' academic performance. However, the integration of critical thinking into accounting modules is challenging, according to Young and Warren (2011). While that may be true, other scholars still argue that these skills should be inculcated in the accounting programme because they benefit accounting students overall. That lends support to the assertion made by Thompson and Washington (2015) that critical thinking in demanding and practical professions such as accounting requires acquiring, analysing, comprehending, conceptualization, and reasoning, which are the same abilities accounting students should use to develop in their industry.

The results presented in this study also tie well with previous studies, such as those by Shehab and Nussbaum (2015), which suggested that students with critical thinking skills are believed to study a ton of information to reach a logical conclusion. Indeed, due to the widely recognised significance of critical thinking skills in accounting, these skills should be nurtured in accounting students aspiring to be chartered accountants. One of the techniques that may be applied to achieve this is exposing these students to case studies, as case studies would allow them to address real-world problems using real-world approaches and solutions. That will enable them to deal with complex problems even in the workplace.

The influence of critical thinking skills on academic performance discovered in this study was consistent with the findings of Kealey et al. (2005). They also concluded that critical thinking skills influence the academic performance of accounting students in a degree programme. Though dated, the findings of Jenkins (1998) also concluded that accounting students with more excellent critical thinking skills outperformed other students on the auditing examinations.

### **Decision-making and academic performance in accounting**

The results of the correlation analysis revealed that decision-making skills are positively associated with accounting students' academic performance. That means that if the students' decision-making skills are lacking or poor, their academic performance will be negatively influenced. This finding highlights the importance and value of good decision-making for good academic performance. Tanglang and Ibrahim (2015) found comparable results, indicating a link between decision-making skills and academic performance. However, their findings were based on distant learning settings, which differed from the context of this study. This

association could be explained by the fact that students with high decision-making skills can transfer their knowledge, attitudes, and ideas into practical abilities (Bala et al., 2017). Comparatively, it is also possible that the link between decision-making skills and academic performance is related to decision-making skills being critical for students in creating and achieving goals (Aminu and Gali, 2012).

### **Problem-solving and academic performance in accounting**

The results of this study on whether a relationship exists between problem-solving skills and academic performance through a correlation analysis revealed an association between problem-solving skills and academic performance in accounting. The link between problem-solving skills and academic performance may be attributable to the fact that students with stronger problem-solving skills tend to be much faster and more effective at understanding complex accounting topics (Bonner, 1994; Libby and Luft, 1993).

### **Stress management and academic performance in accounting**

The regression results shown in Table 7.2 revealed that when the selected skills were regressed, critical thinking and stress management accounted for a 39.7% variation in the accounting students' academic performance. This finding highlights the critical role of stress management (and critical thinking, as discussed above) in enhancing or maintaining good academic performance. It appears that for accounting students to perform at the expected level, they ought to have acceptable levels of stress management skills. That was not surprising, given that stress management has been associated with academic performance in many research studies in other fields. These results confirm that academic stress, which is a reflection of one's perception of an individual's academic frustration, academic pressure, academic anxiety, and academic conflict (Bisht, 1980), is a factor that may affect the performance of students.

When comparing the findings of this study to those of earlier studies, it is worth noting that the findings are similar to those previously observed. For one, Banerjee et al. (2019) came to similar conclusions regarding the considerable impact of stress management skills on student academic performance, revealing that inefficient stress coping mechanisms result in tiredness and psychological distress, with academic problems one of the consequences. The link between

academic performance and stress management revealed by the results of this study seems to support the claim that one of the top risks to academic performance among university students worldwide is stress (Hailu, 2020). The findings of this study were also in line with those of Dweyer and Cummings (2001), who concluded that the inability to manage stress at university could lead to a drop in academic performance and psychological distress. With particular reference to academic success in accounting subjects, Steenkamp (2012) also discovered that stress-management skills have a favourable relationship with students' academic performance. All these studies, together with the findings of this study, show how important it is for accounting students to manage their academic stress because failure to do so may hinder their academic performance.

## 7.9 Chapter Summary

This chapter looked into the literature and offered findings relevant to the fifth research question. The focus of research question five was the link between selected pervasive skills (communication, critical thinking, decision-making, problem-solving, and stress management skills) and the academic performance of the students enrolled in the professional accounting degree. Based on correlation and regression analysis, the findings demonstrated a positive association between the selected skills and accounting students' academic performance.

The next chapter, Chapter 8, concludes the study. In Chapter 8, the study's contributions are presented. It also addresses the study's limitations and discusses the implications of the study.

## CHAPTER EIGHT

### SUMMARY AND CONCLUSION

#### 8.1 Introduction

This study had five research objectives, two of which were addressed qualitatively, and three quantitatively. A single case study of accounting academics and students in the UKZN was undertaken, with focus group discussions and semi-structured interviews to address qualitative objectives. A survey was conducted to collect data to address quantitative research objectives.

This chapter brings this research to a close. Firstly, this chapter presents a summary of the significant findings and critical discoveries of the study. A conceptual model (as shown in Figure 8.2 below) informed by Bronfenbrenner's (1985) Bioecological Framework to explain the factors that affect the development of pervasive skills by accounting students will also be presented. This final chapter also offers the study's contribution, and implications and highlights the study's originality. Finally, the study's limitations are detailed, and recommendations are made based on the findings and future research recommendations.

#### 8.2 Overall results of the study

From the results, it emerged that several factors have resulted in pervasive skills coming to the fore, including globalization, increased use of technology, increased competition, and changes in client and employer demands/expectations, amongst others. The fact that professional accountants no longer just offer the traditional auditing and taxation services but are now involved in providing strategic advice to businesses on many facets of the business has created a need for these professionals to look beyond the numbers to find creative solutions to unstructured business problems. The provision of best advice and service calls for creative and flexible accounting professionals who are expected to use their life experiences, skills, and knowledge to come up with solutions to business-related problems. The findings of this study revealed that the increased competition in the accounting field has also called for a shift in terms of the skills and competencies expected of accounting professionals in the field, resulting in more focus on pervasive skills. Participants revealed that competition for clients possibly drives accounting firms to seek accounting professionals with more than just technical expertise to win over good clients. The participants perceived these factors to have caused a shift in the type of skills expected in the accounting profession. Indeed, globalization has undoubtedly altered the

breadth and nature of accounting work worldwide, necessitating the possession of a skill set that includes both technical and pervasive skills by those in the profession.

Employees with good communication skills can meet client needs. When an accountant has good time management and problem-solving skills, accounting tasks can be finished on time, thus avoiding unnecessary additional costs which would be pleasing to the client. That is important in ensuring that the client is satisfied with the firm's services, resulting in improved firm performance.

Indeed, the added focus on graduate employability through acquiring and demonstrating pervasive skills echoes the Human Capital Theory. Graduates who can contribute to the economy faster by being productive and positively contributing to the fast-tracking of economic growth within a country are preferred by employers.

The results of this study in relation to pervasive skills perceived as important for entry-level employment in the accounting profession revealed that all the study pervasive skills were important, in varying degrees, according to the perceptions of accounting academics and students. This finding strengthened the debate that suggests pervasive skills are essential in today's accounting profession. Worth noting was a finding that showed the perceived importance of critical thinking, communication, and problem-solving skills for entry-level employment and career success in the profession.

Overall, it is critical to align the skills that all stakeholders in accounting (especially employers) consider vital for entry-level employment in the profession to close the expectation gap and reduce the likelihood of graduates having difficulty in their entry-level roles.

From the results of this study, it was revealed that factors that affect the development of pervasive skills by accounting students are multifaceted and include a range of person, process, context, and time-based factors as laid out in Bronfenbrenner's Bioecological Theory. All these factors were said to influence the ability of accounting students to develop pervasive skills. One of the factors, the technical nature of the accounting academic programme as a dynamic that emerged as a factor affecting the accounting students' development of pervasive skills. The volume and intensity of the accounting programme leave very little time for paying attention to pervasive skills, according to the study's participants, thus identifying this factor

as a hindrance in the development/acquisition of some critical pervasive skills like communication skills. Many participants shared how the large class sizes that are so common in many universities across the globe have contributed to limited opportunities for them to get the individual attention that would ordinarily pin-point any skills deficiency if there was any.

The results in relation to the relationship between accounting students' pervasive (selected) skills and their work readiness, through correlation and regression analysis, it was shown that all the selected pervasive skills have an influence on the accounting students' overall work readiness. The results also showed that critical thinking, decision-making, and problem-solving skills strongly correlate with the work-readiness of accounting students aspiring to be chartered accountants. Based on the findings demonstrating the influence of the five pervasive skills on each of the scales of work readiness, it was discovered that communication skills strongly influence Personal Characteristics (PC) and that critical thinking skills significantly improve Organizational Acumen (OA).

In relation to the relationship between pervasive skills and the academic performance of accounting students, the correlation analysis demonstrated that all of the study pervasive skills are positively connected with accounting students' academic performance. Communication skills, in particular, were found to be significantly associated with accounting students' academic performance. Moreover, from the results, it would appear that for accounting students to perform at the expected level, they ought to have acceptable levels of stress management skills

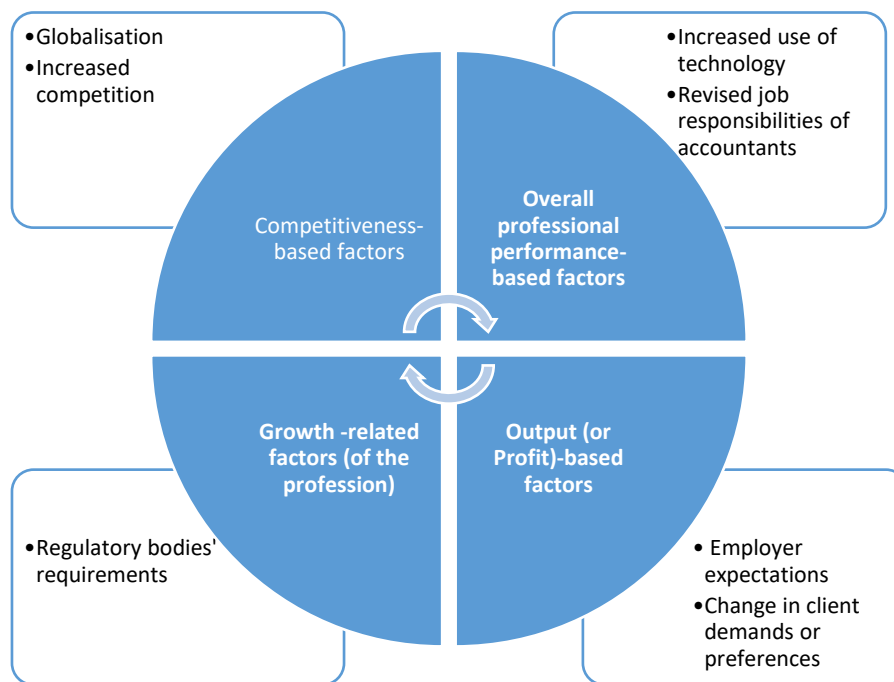
### 8.3 Summary of findings per research question

This study investigated the factors that resulted in pervasive skills coming to the fore in the accounting profession and determined the pervasive skills believed to be critical for entry-level employment in the accounting profession. In addition, it investigated the factors that influence the development of pervasive skills by accounting students aspiring to join the accounting profession soon. Lastly, it explored the relationship between the selected pervasive skills and the accounting students' work readiness and academic performance.

Several findings of this study were consistent with those of previous research studies. However, some refuted the findings of previous studies. The main findings of this study are presented under the study's research questions as follows:

## Research question one

Research question one, which was addressed qualitatively, looked into the factors that led to pervasive skills being more prominent in the accounting profession, and these factors were understood through the Human Capital Theory (HTC). Obtaining knowledge about what drove the change for an added focus on pervasive skills was deemed necessary, especially because students in accounting and other stakeholders, including academics, should understand how the accounting environment is changing in order for them to build appropriate responses to the changes. The findings concerning this research question are summarized in Figure 8.1 below.



**Figure 8.1 Summary of findings: Research question one**

From the results, it emerged that several factors have resulted in pervasive skills coming to the fore, including globalization, increased competition, and others. The participants perceived these factors to have caused a shift in the type of skills expected in the accounting profession. Indeed, globalization has undoubtedly altered the breadth and nature of accounting work worldwide, necessitating the possession of a skill set that includes both technical and pervasive skills by those in the profession.

### Research question two

Research question two focused on the study respondents' views on the importance of the provided pervasive skills (five of which were the main focus of this study) for entry-level employment in the field. The table below (Table 8.1) shows the five skills rated highly by the two sets of study respondents.

**Table 8.1 Main findings: Research question two**

Rating	Accounting students	Accounting academics
1.	Time management	Critical thinking and teamwork
2.	Critical thinking	Oral communication and time management
3	Problem-solving	Problem solving and responsibility
4	Oral communication	Written communication and stress management
5.	Teamwork	Decision-making and numeracy.

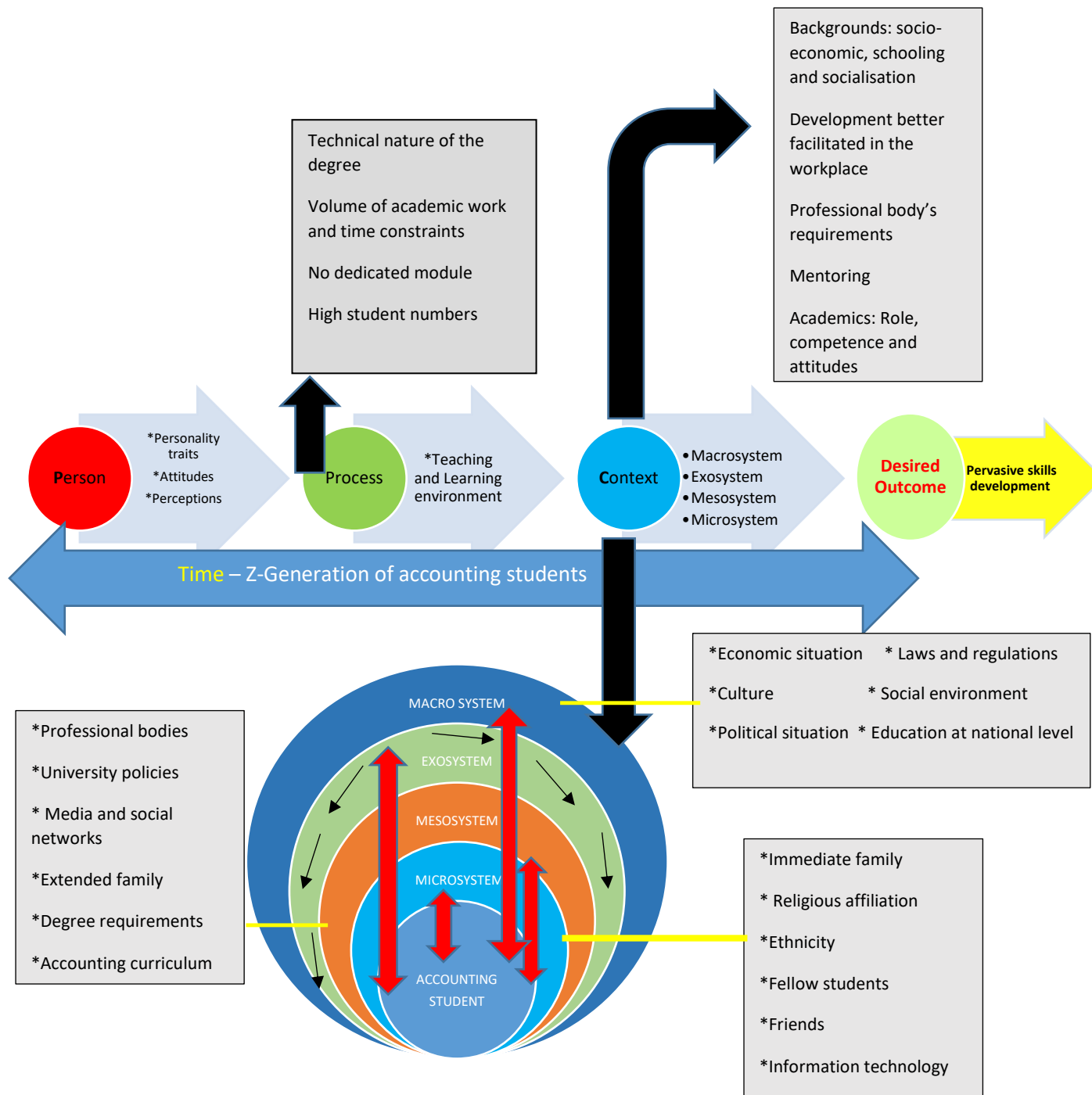
The results relating to this research question revealed that all the study pervasive skills were perceived as important for entry-level employment in the accounting profession to varying degrees by accounting academics and students. This finding strengthened the debate that suggests that pervasive skills are essential in the accounting profession today. Worth noting was a finding that showed the perceived importance of critical thinking, communication, and problem-solving skills for entry-level employment and career success in the profession. From the skills that were not part of the study pervasive skills, the perceived value placed by both groups of respondents on teamwork and time management skills was noteworthy.

### Research question 3

The third research question, which was addressed qualitatively, investigated the factors that stifle or promote the development of pervasive skills, using Bronfenbrenner's Bioecological Theory as a theoretical lens. This qualitative aspect of the investigation demonstrated that the

factors that affect the development of pervasive skills by accounting students are multifaceted and include a range of person, process, context, and time-based factors as laid out in Bronfenbrenner's Bioecological Theory. All these factors were said to influence the ability of accounting students to develop pervasive skills. The evidence collected resulted in the development of a conceptual model based on Bronfenbrenner's Bioecological Theory (Figure 8.2).

The proposed conceptual model (on the next page), which is based on the results of the third research question, depicts the person, process, context, and time-based elements at play in the development and refinement of accounting students' pervasive skills.



**Figure 8.2 Proposed Conceptual Model**

Source: Author's own work

### **Explanation: Proposed Conceptual Model**

The above model is based on Bronfenbrenner's Bioecological Theory and can be used to understand the factors that affect the development of pervasive skills by accounting students aspiring to be chartered accountants in the South African context.

The concept of ecological change is central to Bronfenbrenner's theory. "An ecological transition occurs whenever a person's position in the ecological environment is altered as the result of a change in role, setting, or both" (Bronfenbrenner 1979, p. 22)." For example, enrolling for a university degree, finding part-time employment as a student, enrolling in tutorial programmes, and others are changes that may bring change to a student. These changes often signal critical developmental milestones for individuals and ecological transitions that offer significant development opportunities.

According to the model, a strong desire to learn a skill is necessary but not sufficient for its development as there must also be beneficial environmental influences at play as well. For example, a person who wants to improve their communication abilities but does not have the financial means to do so will be unable to do so. Similarly, a person may not desire to develop communication skills, but if doing so is required for obtaining a professional degree, he or she will have to do so. As a result, if one wants to promote the development of pervasive skills by accounting students, one must first positively modify (if possible) the systems in the accounting student's immediate environment. In addition, resources for pervasive skills development must be provided in the environments/contexts (macro, exo, meso, and micro systems). This implies that the degree of interaction and resources available in an accounting student's environment affects their ability to succeed or fail in terms of pervasive skills development.

Unlike the development of hard skills, which appears to rely on training as a mechanism for development, the development of pervasive skills necessitates the support of a complex ecological context to enable the essential personal interaction with others. Such development necessitates accepting feedback, which can sometimes be frustrating, so honing these skills can be difficult. For example, if one wants a student to improve his or her communication skills, the student can be entered into a mentorship programme and be mentored by someone with good communication skills, and this must be perceived as an enjoyable process by the student. Such a beneficial change would be indicative of a change in the student's mesosystem, which entails a shift in the student's position from passive to active in this exciting, collaborative, and

engaging activity, which will promote an ecological transition that will result in positive human development in terms of communication skills.

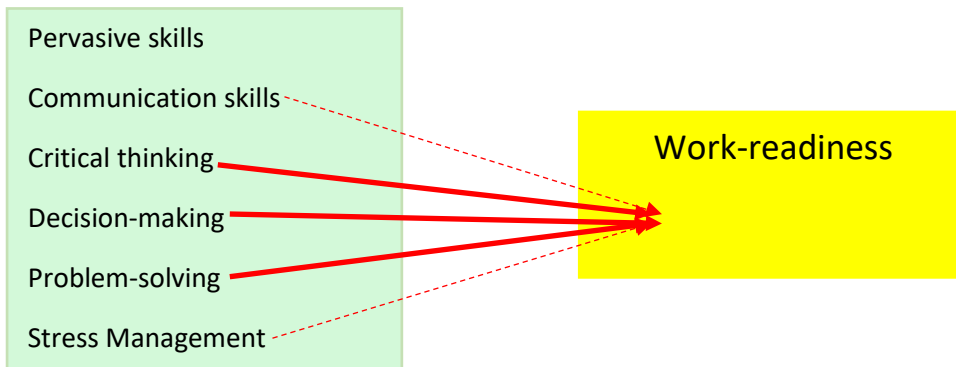
Highlighting reasons that may explain why some accounting students do not demonstrate the levels of pervasive skills desired by the various stakeholders in accounting, Levasseur (2013) states that it is hardly surprising that students in academic subjects like accounting, which do not require as much human interaction as, say, human resource management, do not have perfectly polished skills just before they access the job market. First, because of their personality (P), they are often less motivated to learn soft skills; and secondly, the academic environment (E) does not adequately encourage learning those skills.

Given that environmental influences impact overall human development, they must also impact the development of pervasive abilities, particularly in young adults. For this reason, it would seem that various environmental factors are assumed to affect the skills development of students from socio-economically challenged contexts. Hence, factors such as the student's family life, experiences, and background are likely to have an impact on the skills held by the student.

All in all, according to this model, to understand how accounting students develop the desired pervasive skills and the factors that affect such development, one should look into the environments in which these developing individuals spend time and their relationships with those in these environments. Also, one ought to look into the individual's personal characteristics, including those of whom he or she generally interacts, the development process over time, and the historical period to which an individual belongs. In addition, one needs to consider the proximal processes, as these are the drivers that steer their development.

#### **Research question 4**

In answering the fourth study question, correlation and regression analysis were conducted to determine a relationship between accounting students' pervasive (selected) skills and their work readiness. The findings are summarized in Figure 8.3 below.



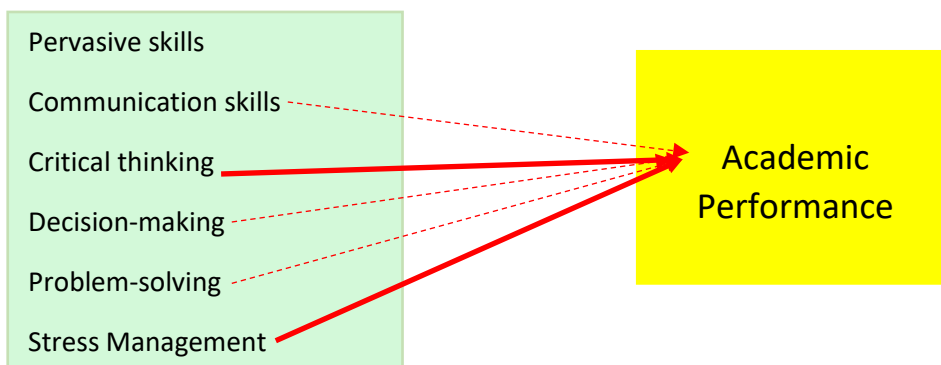
**Figure 8.3 Relationship between selected pervasive skills and work-readiness**

**Source: Self-generated**

Figure 8.3 above shows the findings of this study in relation to the relationship between the selected pervasive skills and accounting work-readiness. In order to depict the nature and extent of the relationship, a solid line in Figure 8.3 indicates a strong association, and a perforated line indicates a moderate or low association between the variables under investigation. The multivariate analysis showed that all the selected pervasive skills have an effect on accounting students' work readiness. The results also showed that critical thinking, decision-making, and problem-solving skills strongly correlate with the work-readiness of accounting students aspiring to be chartered accountants.

**Research question 5**

Lastly, the fifth research question focused on the association between accounting students' pervasive skills and academic performance in the academic programme. This last research question was also statistically addressed, employing correlation and regression analysis. Figure 8.4 below shows the results concerning this research question.



**Figure 8.4 Relationship between selected pervasive skills and academic performance**

**Source: Self-generated**

Figure 8.4 above shows the findings of this study in relation to the relationship between the selected pervasive skills and accounting students' academic performance. In order to depict the nature and extent of the relationship, a solid line indicates a strong association, and a perforated line indicates a moderate or low association between the variables. The influence of the study's pervasive skills on accounting students' academic performance, obtained through correlation analysis, was positive for all the pervasive skills. More significantly, critical thinking and stress management skills were shown to have a higher degree of association with the students' academic performance than the three other skills. The regression analysis results showed that the combined effect of the study variables on the accounting students' academic performance was 39.7%, showing that the pervasive skills do have a notable effect on the academic performance of accounting students.

#### 8.4 Contribution of the study

Overall, the purpose of this study was to fill a gap in the literature on the need for and influence of pervasive skills on the work readiness and academic performance of accounting students aspiring to join the accounting profession soon. This was achieved by identifying the circumstances that lead to pervasive skills becoming more prominent in the profession viewed from a Human Capital Theory perspective and by looking into the disparity between accounting academics and students' perceptions of the pervasive skills highly valued for entry-level employment in the profession. Moreover, the purpose was also achieved by examining the factors, from a Bioecological Theory perspective, that stifle or promote the development of pervasive skills, which in turn affect the accounting students' levels of work readiness and academic performance.

#### **Practical contributions**

The results of this study can contribute to a better understanding of the factors that affect the development of pervasive skills in accounting students who aspire to be chartered accountants. The results could explain why employers are still unsatisfied with the pervasive skills that accounting graduates demonstrate upon entering the work environment. Obtaining evidence about the constraining factors as perceived by both the aspirant accountants (students) and accounting academics would help determine how and where interventions can be introduced

both within the academic programme and outside with the view of improving the work-readiness and academic performance of accounting students.

The present study's findings also provide a clearer picture of the factors that have led to the prominence of pervasive skills in the accounting profession. Based on the factors identified, all of which are not believed to be going away soon (such as globalization, revised roles of accountants, and increased use of technology in the accounting profession), accounting students in the professional programme would hopefully realize the need to pay an added focus on pervasive skills and the prioritization thereof. Paying an added focus on pervasive skills would ensure that the accounting students are equipped with the necessary skills to secure entry-level employment and overall career success in the field. Understanding these factors could also give accounting students a deeper understanding of the roles and responsibilities of accountants (and auditors) in the 21<sup>st</sup> century. This understanding is crucial for better preparation and readiness for a career in the accounting profession. Lastly, the findings of this study will hopefully increase the accounting students' awareness of the significance of pervasive skills in the accounting profession and motivate them to prioritize the acquisition of these skills alongside technical knowledge, not just for the sake of complying with the SAICA Competency Framework. The accounting students' added focus on pervasive skills would improve their prospects of securing and retaining professional employment in the field.

Employers and professional bodies would also benefit from accounting with appropriate skills as suggested by the Human Capital Theory. Employers would benefit from employee efficiency and effectiveness in the workplace due to their possession of critical technical and pervasive skills. On the other hand, professional bodies also stand to benefit as the profession's reputation is enhanced if members of the profession are suitably competent (in terms of technical competency and skills). Applying skills and knowledge in accounting and audit engagements also enhances the quality of work produced.

### **Theoretical contributions**

This present study aimed to address multiple gaps (as addressed by the five research questions) on the role of pervasive skills in the academic and professional preparation of aspirant accountants and by doing so make important contributions.

This study has three key contributions to make. Firstly, the contribution is in the use of two theories created in advanced economies to comprehend the factors that have caused pervasive skills to come to the fore and the factors that affect the development of pervasive skills in accounting students in a developing economy, the Human Capital Theory and Bronfenbrenner's Bioecological Theory. These two frameworks are widely recognized and have been used in some groundbreaking research worldwide.

To the best of the researcher's knowledge, this is the first study in South Africa to use the Human Capital Theory to understand why there is much emphasis on pervasive skills in the accounting profession. The present study extends this theory by integrating concepts adopted from Samagaio and Rodrigues's (2016) Model to enhance the understanding of the factors that have possibly resulted in the prioritisation of pervasive skills in the accounting profession in the local context.

Secondly, based on the notion that pervasive skills will remain a priority in the accounting profession in the local context of South Africa, as demonstrated by the CA2025 project, this study is designed to assist all relevant stakeholders in accounting better understand the factors that may impede or encourage the development of pervasive skills by accounting students. Again, to the best of the researcher's knowledge, this is the first study in South Africa to use Bronfenbrenner's Bioecological Theory to frame the understanding of the factors that affect the development of pervasive skills by aspirant chartered accountants. In this regard, the conceptual model shown above (Figure 8.2) is a contribution that serves as a useful tool for assisting in the comprehension of these factors. Researchers in the future might potentially improve or enhance it.

Thirdly, this study makes a theoretical contribution to the limited body of knowledge on the relationship between the selected pervasive skills and work readiness, particularly in the accounting field. It also contributes to the existing literature on the relationship between the selected pervasive skills and academic performance, especially in accounting, where research is scarce in this area. Through this study, it was noted how scarce the research is on the relationship between the selected pervasive skills and academic performance in accounting, especially in the local context, South Africa. This observation was remarkable given the extent

of research looking into employers' views about their concerns about the work-readiness of accounting graduates, both locally and internationally. Similarly, many research studies have revealed concerns about the academic performance of accounting students, locally and internationally as well.

Overall, this study adds to the growing body of knowledge on the importance and role of pervasive skills in aspirant accountants' professional and academic preparation in non-western countries, where existing research is scarce. More specifically, the study's goal was to develop knowledge relevant to the South African context.

### 8.5 Implications of the study

As stated in Chapter One, one of the reasons for conducting this study was the degree of criticism that the academic accounting programme has received in the literature regarding the dissatisfaction expressed by various stakeholders, particularly employers, regarding the accounting graduates' lack of pervasive skills.

The current study's implications can be interpreted from a theoretical, methodological, and practical standpoint. This study used the pragmatic paradigm in terms of theory, which implies that knowledge and understanding are constantly changing and are largely problem-centered and pluralistic. A mixed-methods approach was adopted in terms of methodology, with the qualitative aspect guided by the Human Capital and Bioecological Theories. The use of the mixed methods in this research provided a holistic approach to address the research questions this study intended to answer.

From a practical point of view, this study proposes that in order for the students to see the benefits of prioritizing pervasive skills and attributes, as they would technical skills, an understanding of the need for pervasive skills as well as the factors that have led to these skills coming to the fore in the current accounting profession is crucial. Judging by the factors that have resulted in pervasive skills coming to the fore in the accounting profession, all of which seem to be permanent conditions, it would seem that more focus and resources must be channeled to pervasive skills training, coaching, and mentoring.

The results showing the factors that hinder or support the development of pervasive skills suggest multiple factors, some of which various interventions could be introduced to address. Thus, one of the most important implications is the need for the university to nurture the development of pervasive skills through training and mentoring programmes. Other initiatives

that could be considered include holding conferences to facilitate discourse on pervasive skills development, and in such conferences, the attendance of academics, qualified practitioners, and members representing professional bodies in accounting and accounting students is encouraged. Implementing interventions designed to create opportunities for the development of pervasive skills, on and off the classroom (workplace, mentoring, the involvement of those in the microsystem, and others) may narrow the expectations gap that exists between what employers of accounting graduates expect and what accounting graduates actually possess or demonstrate in terms of non-technical skills.

Although there were instances where the gap was narrow, the quantitative findings confirmed findings from previous research studies that pointed to a ‘disconnect’ between what accounting students and academics perceive as critical pervasive skills for entry-level employment and success in the accounting field. The findings of this study suggest that students should be made aware of the critical, pervasive skills required for entry-level accounting employment and career success and that they should work on enhancing or refining those skills. This will, hopefully, align their skills with what their employers demand. The other benefit that may result from an added focus on pervasive skills could support accounting graduates’ in dealing with the transitional challenges upon entering the professional work environment, as previously pointed out by Tran (2013).

## 8.6 Limitations of the study

This research yielded several significant discoveries about the factors that have contributed to the rise of pervasive skills in the accounting profession and that influence their development. It also yielded significant incongruities between the pervasive skills that accounting academics and students believed crucial for entry-level employment and career success. Significant conclusions were also presented about the significance of pervasive skills in accounting students’ work readiness and academic performance. Nonetheless, there are some limitations to consider.

This section will concentrate on three concerns that are thought to have limited this research. The first limitation was attributable to the exploratory nature of some sections of the research study as it does not provide causal factors; therefore, one may not conclude that the dependent variables under study are influenced by the independent variables identified as there may be extraneous factors that may exist that are not controllable. Also, because of the exploratory

nature of those sections, the research was unable to provide comprehensive insight for future development in those specific sections of the study, although it did make broad recommendations.

A methodological shortcoming in the study constituted another limitation. The study used a cross-sectional survey as one of the data collection methods, so the participants' perspectives were only gathered at one point in time. It would have been interesting to see how participants' opinions changed over time in longitudinal research.

The third limitation is the geographical scope of the study. Even though there are 26 public universities in South Africa, 17 of which offer SAICA-accredited accounting programmes (SAICA, 2021b), the study focused on one location due to practicality and time constraints. The selection of one university in KwaZulu-Natal (UKZN) for data collection purposes limits the participation of other Bachelor of Commerce: Accounting students in other universities in KwaZulu-Natal and other provinces in South Africa.

The fourth limitation was the sample sizes, particularly that of academics who participated in the survey. Although this study aimed to gather data that were representative of the population of accounting academics at the site university, the data collected did not reflect the views of the entire target group due to low response rates in this cohort of participants.

The fifth and last limitation was introduced by data that was self-reported. Accounting students' self-reported academic performance was also obtained for this study. This suggests that the results of the last research question could be influenced by self-reporting bias since some respondents may be hesitant to admit that their academic performance is poor and may have overestimated their academic performance.

The last limitation stems from the nature of the pervasive skills under investigation. It is important to note that the distinctions between the various pervasive skills are not always straightforward, as some overlap; self-management and self-discipline, for example.

## 8.7 Originality of the research

Despite its limitations, this study, to the researcher's knowledge, is unique. It is the first in South Africa to investigate the factors that influence the development of pervasive skills from the perspective of accounting students seeking to be chartered accountants from a Bioecological stance. This study is also the first study investigating the relationship between

the selected pervasive skills and academic performance in accounting in a single study in the local context. The inclusion of stress management as one of the skills under investigation also made this study especially unique as no known study in South Africa has investigated the relationship between stress management and academic performance in accounting. Again, no known study has investigated the relationship between the selected pervasive skills and accounting students' work-readiness in the local context.

## 8.8 Recommendations stemming from findings

The following recommendations are made based on the findings of this study:

- Generally, it is evident that pervasive skills play a critical role in the academic and professional preparation of accounting students who aspire to be chartered accountants. The need for pervasive skills has been increased by ongoing global and international developments in the external environment within which the accounting profession operates and within itself. For these reasons, accounting students' development of pervasive skills needs to be afforded added attention and priority from all stakeholders, including accounting students themselves.
- From the results, it would seem that simply informing accounting students about the significance of pervasive skills is not adequate. In working towards a solution, various interventions should be introduced to equip the aspirant accountants with the appropriate skills demanded by the profession.
- A tailor-made approach should be considered when designing interventions designed to support accounting students' pervasive skills. This is because the one-size-fits-all approach would not be as effective given the students' differences in terms of backgrounds, personalities, and attitudes.
- Academics must be encouraged and resourced to identify and mentor accounting students before they graduate. This is because accounting students revealed that they see value in being mentored by their lecturers.
- As an incentive, their participation should be recognized (if not already) in their performance management for academics who take on mentorship responsibilities. This recommendation stems from the fact that equipping students with knowledge is not adequate to meet the needs of the 21<sup>st</sup>-century work environment. Mentoring would

ensure that every graduate student has the necessary skills, values and attitudes to face the unpredictable world of work.

- The message here is that successfully supporting accounting students to obtain their academic qualifications on its own is not adequate for the development of the much-needed skills. While the good academic performance of accounting students is clearly essential, their skills will set them apart and increase their employment prospects, especially in today's dwindling economy characterized by high unemployment, even of graduates. For this reason, extra support must be provided to those accounting students from backgrounds that do not adequately support the development of critical skills such as communication and decision-making.
- Given the strong association discovered between stress management and academic performance in accounting students, the university could pay an added focus on stress management training to include topics like time management. Such training initiatives would equip accounting students with the stress management skills necessary for the fast-paced, pressure-driven, and often stressful profession they have chosen as a career. Equipped with the necessary stress management skills, their academic performance would also be enhanced.
- Concerning work-readiness, from the results of this study, it is clear that improving the students' pervasive skills would also enhance their work-readiness. For this reason, Work-readiness Workshops could be arranged for students to attend regularly, more especially in the final year of study. Alternatively, a separate course designed specifically to address these two aspects could be considered to address students' work readiness and pervasive skills development. The university could run this 'stand-alone' module with the help of external volunteers, especially qualified chartered accountants in the field already.

## 8.9 Recommendations for future research

Obtaining an understanding of the factors that have resulted in pervasive skills coming to the fore and how most of these factors are not expected to end soon and discovering how time constraints and academic workloads impede the development of pervasive skills, compelled the proposal for a stand-alone module. The stand-alone module could focus solely on the development of pervasive skills in the existing accounting degree curriculum. Future studies

could explore how a separate module is designed to develop pervasive skills so that these skills receive an equal priority as other technical subjects.

Also, the study uncovered various findings regarding the factors that influence accounting students' development of pervasive skills. Given that mentoring was one of the factors identified, the study suggests that the usefulness of mentoring programmes in accounting programmes be investigated further. The contribution of academics in the mentorship of aspirant chartered accountants (as depicted in the chronosystem) has been critical and warrants more exploration.

Future research might target a larger academic sample to compare the skills perceived crucial for entry-level employment and career success by accounting students and academics, as only a few academics participated in this study.

Because this research was based on a single case study, future researchers could collect data from all South African universities that provide SAICA-accredited accounting programmes. Moreover, instead of the cross-sectional approach used to collect survey data in this study, future researchers should consider longitudinal data collection.

#### 8.10 Summary and conclusion

In this chapter, the conclusion of the research was provided. This chapter also presented a summary of the findings, the study's contributions, and the study's implications. The recommendations stemming from the results and those for future research were also provided in this chapter.

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## ANNEXURE 1: WORK READINESS SCALE (WRS) – 63 ITEMS

### **Factor 1: PERSONAL CHARACTERISTICS (PC)**

- D1.1 I take things personally.
- D1.2 I am intolerant of critics.
- D1.3 Managing many things stresses me.
- D1.4 I am not comfortable with taking criticism.
- D1.5 I will not have a problem with approaching senior people at an accounting professional work environment.
- D1.6 I sometimes experience difficulty starting a task.
- D1.7 I am confident that I will be able to deal with competing accounting professional work demands.
- D1.8 I am easily offended.
- D1.9 I am unsure when it is appropriate to speak up or to stay quiet.
- D1.10 I have discomfort asking questions when unsure.
- D1.11 I am overwhelmed by challenging circumstances.
- D1.12 I do not like being told how to do things differently.
- D1.13 I get upset if others change the way I have organised things.
- D1.14 I am confident that I will be able to manage new social situations in an accounting professional work environment.
- D1.15 I have difficulty understanding abstract ideas\*
- D1.16 I do not think I will succeed with the accounting professional career goals I have set.
- D1.17 I have a tendency to judge others.
- D1.18 I have superiority over others who have less knowledge of Accounting.
- D1.19 I have difficulty establishing trust and rapport.
- D1.20 Juggling too many things at once is one of my weaknesses.
- D1.21 I do not like the idea of change.
- D1.22 I do not like learning new things.

## **Factor 2: ORGANISATIONAL ACUMEN (OA)**

- D1.23 I think one learns from work colleagues.
- D1.24 I think I can learn from employees who have worked in a professional accounting work environment for many years, even if they do not have an Accounting university degree.
- D1.25 Learning from long serving employees is important in an accounting professional work environment.
- D1.26 I believe that understanding organizational processes is important.
- D1.27 It is important to learn as much as possible about the employer (accounting firm) if you have just joined the organisation.
- D1.28 It feel that respecting colleagues is important.
- D1.29 I believe that keeping abreast of developments in the accounting field is important.
- D1.30 I take responsibility for my decisions and actions.
- D1.31 I respect authority figures.
- D1.32 I understand the impact of global issues in accounting on professional accounting work.
- D1.33 I am open to opportunities to learn and grow in the workplace.
- D1.34 I am eager to throw myself into a professional accounting work environment.
- D1.35 I always work on improving myself in terms of knowledge of my discipline, accounting.
- D1.36 I believe that an organization's values and beliefs form part of its culture
- D1.37 I believe that feedback is an opportunity for learning.
- D1.38 I thrive on completing tasks and achieving results.
- D1.39 I cannot wait to start work in a professional accounting environment and throw myself into a project.
- D1.40 I believe that newly graduated accounting professionals should be willing to start at the bottom.
- D1.41 I believe that listening and learning is more important than showing your knowledge at work.

## **Factor 3: WORK COMPETENCE**

- D1.42 I have confidence about the accounting discipline knowledge I possess.
- D1.43 I have theoretical understanding of the field/discipline of accounting.
- D1.44 People approach me for original ideas.

D1.45 I have confidence in my accounting technical competency.

D1.46 I am aware of my strengths and weaknesses.

D1.47 I remain calm under pressure.

D1.48 I believe that being successful at work is very important.

**One item omitted from this factor\*\***

D1.49 I can cope with multiple demands.

D1.50 I set high standards for myself and others.

D1.51 I have the ability to analyse and solve accounting problems.

D1.52 I am passionate about accounting.

D1.53 Being amongst the best in the accounting field is very important to me.

D1.54 I have an eye for detail.

D1.55 I have a mature view of life

**Factor 4: SOCIAL INTELLIGENCE**

D1.56 I adapt to different social situations easily.

D1.57 I develop relationships with people easily.

D1.58 I have an open and friendly approach.

D1.59 I can express myself easily.

D1.60 I am good at making impromptu speeches.

D1.61 I adapt easily to new situations.

D1.62 I can read body language.

D1.63 I like working in groups.

## ANNEXURE 2: SURVEY QUESTIONNAIRE: ACCOUNTING STUDENTS

Dear potential respondent

This survey will take about 45 minutes. All your responses will be treated with total confidentiality and the strictest care.

1. Would you like to take part in the survey?

Yes	
No	

If your answer for no. 1 is yes, kindly sign below to indicate your consent and continue with the survey.

---

**PART A: DEMOGRAPHIC INFORMATION**

Please indicate your chosen option with an **X** or **✓**

**A2. Gender**

1. Male	
2. Female	

**A4. Age (last birthday)**

	years
--	-------

**A5. Number of years: employment experience**

	years
--	-------

**A6. In school, did you take English as a...**

1. First language	
2. First additional or Second language	

**A7. Type of school attended**

1. Former Model C School (Multi-racial)	
2. Independent School (IEB) (Private)	
3. Rural/Township School	

**Academic performance in Accounting (B.Comm)**

What mark did you get for Financial Accounting?

A13. Financial Accounting 2A (ACCT211)	_____ %
A14. Financial Accounting 2B (ACCT212)	_____ %
A.15. Financial Accounting 3A (ACCT311)	_____ %

**A3. Race**

1. Black African	
2. Asian	
3. White	
4. Coloured	
5. Other	

**Grade 12 Academic performance**

Subject	Mark obtained
A8. Accounting	_____ %
A9. Mathematics	_____ %
A10. English	_____ %

**Lecture attendance**

**A11. Are you able to attend all accounting lectures in a week?**

1. Yes | 2. No

**A12. Who influenced your decision to study Bachelor of Commerce: Accounting?**

1. Own decision – no influence from others
2. Parent
3. School teacher
4. Friend/Relative
5. Other

A16. Please rate your overall academic performance in the Bachelor of Commerce: Accounting degree.

1. Good

2. Average

3. Poor

A17. Self - Study time – Hours

How many hours do you allocate for your studies per week (excluding lectures)? -----hours

**PART B: Life Skills Assessment Scale (LSAS)**

No	Item	Always true of me	Very true of me	Sometimes true of me	Occasionally true of me	Not at all true of me
<b>Communication Skills</b>						
B1.1	I use the right words for the right situations.	5	4	3	2	1
B1.2	Whatever I say, people misunderstand me.	1	2	3	4	5
B1.3	Whether people understand me or not, I will say what I want to say.	1	2	3	4	5
B1.4	If I do not understand, I am able to ask a question.	5	4	3	2	1
B1.5	I do not speak without assessing the situation.	5	4	3	2	1
B1.6	I do not know the right words to ask for help.	1	2	3	4	5
B1.7	I am in such a hurry to talk that I cannot wait for others to stop.	1	2	3	4	5
B1.8	I get distracted, when I am listening to others.	1	2	3	4	5
B1.9	When I read or listen to something, I am able to see the missing parts.	1	2	3	4	5
<b>Critical Thinking</b>						
B2.1	I do not speak without assessing the situation.	5	4	3	2	1
B2.2	When I learn something, I keep asking many questions.	5	4	3	2	1
B.2.3	Whenever there is a problem or concern, I find another way.	5	4	3	2	1
B.2.4	When I have taken up some work, difficulties do not bother me much.	5	4	3	2	1
B.2.5	In a crisis, I think clearly.	5	4	3	2	1
B2.6	When I read or listen to something, I am able to see the missing parts.	5	4	3	2	1
B2.7	I am unable to find new perspective for situations.	1	2	3	4	5
B2.8	When I read or listen, I keep asking questions to myself.	5	4	3	2	1

B2.9	When I am in doubt, I look at the whole situation.	5	4	3	2	1
B2.10	Once I have thought of something, it is very difficult to change my view.	1	2	3	4	5
B2.11	I look at a situation and analyze it.	5	4	3	2	1

### Decision making

B3.1	I collect all the necessary information before I make a decision.	5	4	3	2	1
B3.2	Whatever my friends decide I go by it.	1	2	3	4	5
B.3.3	While deciding I keep checking with others, whether I am on the right track.	1	2	3	4	5
B3.4	When I have to decide, I look at how much risk I have to take.	5	4	3	2	1
B3.5	If I have to make a decision, I look at what kind of commitments I will have to make.	5	4	3	2	1
B3.6	I decide because I like something.	1	2	3	4	5
B3.7	Even if I fail, I prefer to go by first impression.	1	2	3	4	5
B3.8	I do not look for choices, I just decide.	1	2	3	4	5
B3.9	The more problems I have, the more difficult it is for me to decide.	1	2	3	4	5
B3.10	Once I have a thought of a solution, I definitely act*	1	2	3	4	5
B3.11	My friends and family help me to decide.	1	2	3	4	5
B3.12	Whenever, there is a doubt, I decide after looking at the whole picture.	5	4	3	2	1

### Problem solving

B4.1	If I have a problem, I start finding various options.	5	4	3	2	1
B4.2	When I am confused about a problem, I discuss it with others.	5	4	3	2	1
B4.3	When I solve a problem, I do not mind trying and failing.	5	4	3	2	1
B4.4	I am able to identify my problems clearly.	5	4	3	2	1
B4.5	I am unable to find new perspectives for situations.	5	4	3	2	1
B4.6	Whenever there is a doubt, I decide after looking at the whole picture.	5	4	3	2	1
B4.7	I do not speak, without assessing the situation.	5	4	3	2	1
B4.8	I don't want to be forced or hurried to solve problems*	1	2	3	4	5

B4.9	Whenever there is a problem or concern, I find another way.	5	4	3	2	1
B4.10	I make a list of all the aspects relating to a problem.	5	4	3	2	1

### Stress Management

B5.1	I postpone my academic work till the last minute*	1	2	3	4	5
B5.2	I keep worrying about my health*	1	2	3	4	5
B5.3	I have so many ideas in my head, due to that I have difficulty falling off to sleep*	1	2	3	4	5
B5.4	I feel hardened with my studies*	1	2	3	4	5
B5.5	I am unable to find new perspectives for situations*	1	2	3	4	5
B5.6	I am unable to generate many ideas.	1	2	3	4	5
B5.7	When doing a task, I keep improving it.	1	2	3	4	5
B5.8	During an examination my mind goes blank sometimes.	1	2	3	4	5

## SECTION C

THE QUESTION RELATING TO SECTION C OF THE QUESTIONNAIRE WAS REMOVED AND DATA IN RELATION THERETO WAS NOT ANALYSED.

## PART D: Work Readiness Scale (WRS)

No	Item	Always true of me	Very true of me	Sometimes true of me	Occasionally true of me	Not at all true of me
D1.1	I am easily offended.	1	2	3	4	5
D1.2	I am overwhelmed by challenging circumstances.	1	2	3	4	5
D1.3	Juggling too many things at once is one of my weaknesses.	1	2	3	4	5
D1.4	I think one learns from work colleagues.	5	4	3	2	1
D1.5	I think I can learn from employees who have worked in a professional accounting work environment for many years, even if they do not have an Accounting university degree.	5	4	3	2	1
D1.6	Learning from long serving employees is important in an accounting professional work environment.	5	4	3	2	1
D1.7	I believe that understanding organizational processes is important.	5	4	3	2	1

D1.8	It is important to learn as much as possible about the employer (accounting firm) if you have just joined the organisation.	5	4	3	2	1
D1.9	It feel that respecting colleagues is important.	5	4	3	2	1
D1.10	I believe that keeping abreast of developments in the accounting field is important.	5	4	3	2	1
D1.11	I take responsibility for my decisions and actions.	5	4	3	2	1
D1.12	I respect authority figures.	5	4	3	2	1
D1.13	I am open to opportunities to learn and grow in the workplace.	5	4	3	2	1
D1.14	I am eager to throw myself into a professional accounting work environment.	5	4	3	2	1
D1.15	I have confidence about the accounting discipline knowledge I possess.	5	4	3	2	1
D1.16	I have theoretical understanding of the field/discipline of accounting.	5	4	3	2	1
D1.17	I have confidence in my accounting technical competency.	5	4	3	2	1
D1.18	I can cope with multiple demands.	5	4	3	2	1
D1.19	I set high standards for myself and others.	5	4	3	2	1
D1.20	I have the ability to analyse and solve accounting problems.	5	4	3	2	1
D1.21	I adapt to different social situations easily.	5	4	3	2	1
D1.22	I develop relationships with people easily.	5	4	3	2	1
D1.23	I have an open and friendly approach.	5	4	3	2	1
D1.24	I can express myself easily.	5	4	3	2	1

PART E: RANKING OF SELECTIVE PERVASIVE SKILLS

**A.** Please assess each of the pervasive skills in terms of its importance for **entry-level** professional accounting employment.

*Please select by either putting a tick ✓ or a cross X*

Pervasive Skill	<b>A: Importance for entry-level professional accounting work (articles)/ Junior positions in the profession.</b>		
	High	Moderate	Low
E1. Self-management	3	2	1
E2. Time management	3	2	1
E3. Self-discipline	3	2	1
E4. Independence	3	2	1
E5. Oral communication	3	2	1
E6. Written communication	3	2	1
E7. Critical thinking	3	2	1
E8. Decision making	3	2	1
E9. Computer application skills	3	2	1
E10. Teamwork	3	2	1
E11. Stress management skills	3	2	1
E12. Problem-solving	3	2	1
E13. Life-long learning	3	2	1
E14. Responsibility	3	2	1
E15. Numeracy skills	3	2	1

## ANNEXURE 3: QUESTIONNAIRE: ACCOUNTING ACADEMICS

### Questionnaire

Dear research participant

This survey will take about **10 minutes**. All your responses will be treated with total confidentiality and strictest care.

2. Would you like to take part in the survey?

Yes	
No	

If your answer for no. 1 is yes, kindly sign below to indicate your consent and if granted, then continue with the survey.

\_\_\_\_\_

### PART A: DEMOGRAPHIC INFORMATION

Please indicate your chosen option with an **X**

AA1. Gender

2. Male	
3 Female	

AA2. Number of years: lecturing experience in the accounting discipline

	Years
--	-------

**PART B: RANKING OF SELECTIVE PERVASIVE SKILLS**

Section A: Please rate each of fifteen pervasive skills in terms of its importance for entry-level professional accounting employment.

*Please select by either putting a tick ✓ or a cross X*

Pervasive Skill	A: Importance in <u>entry-level</u> professional accounting employment		
	High	Moderate	Low
1. Self-management	3	2	1
2. Time management	3	2	1
3. Self-discipline	3	2	1
4. Independence	3	2	1
5. Oral communication	3	2	1
6. Written communication	3	2	1
7. Critical thinking	3	2	1
8. Decision making	3	2	1
9. Computer application skills	3	2	1
10. Teamwork	3	2	1
11. Stress management skills	3	2	1
12. Problem-solving	3	2	1
13. Life-long learning	3	2	1
14. Responsibility	3	2	1
15. Numeracy skills	3	2	1

## ANNEXURE 4: FOCUS GROUP INTERVIEW SCHEDULE: ACCOUNTING STUDENTS

1. What is your understanding of pervasive (generic, life, soft) skills?
2. What factors, in your opinion, have contributed to pervasive skills coming to the fore in the accounting profession?
3. Do you think final-year accounting students demonstrate adequate pervasive skills?
4. On a scale of 1 to 5 (1 - poor to 5 - excellent), how would you rate yourself in terms of your level of pervasive skills?

With specific reference to:

- 4.1 Good communication skills
  - 4.2 Critical thinking
  - 4.3 Decision-making skills
  - 4.4 Problem-solving skills
  - 4.5 Stress Management skills
5. Do you think that pervasive skills play an important role in your academic performance in Accounting?
  6. What factors support/hinder your development of pervasive skills on/off the classroom?
  7. Do you think that having pervasive skills is necessary for a successful professional career in accounting (including tax, auditing, and management accounting)? If so, which pervasive skills?
  8. Do you think that pervasive skills enhance the application of technical discipline (accounting) knowledge in a professional work setting?
  9. Which pervasive skills do you think are important for entry-level professional accounting work (to secure a job and undertake all work duties successfully – in training articles)?
  10. Do you reflect on your work readiness for a professional career in accounting (in terms of skills and knowledge)?
  11. What would better prepare you for a professional career in accounting?
  12. How do you support the following statement on a scale of 1(not at all) to 5 (completely support)?  
“An accounting student’s pervasive skills level may give an indication of how work-ready the student is for a professional career in accounting.”
  13. As an accounting student, do you think having the right pervasive skills may lower your academic stress?
  14. From the list of pervasive skills provided, please select five pervasive skills that you think contribute (play a role in) to
    - 16.1 Your academic performance
    - 16.2 Your work-readiness for an entry-level professional career in accounting

You may select the same pervasive skill across all three categories – i.e., pervasive skills may be selected more than once\*

## ANNEXURE 5: INDIVIDUAL INTERVIEW SCHEDULE: ACCOUNTING ACADEMICS

### PART A: Semi-structured interview questions

1. How many years have you been lecturing in the Bachelor of Commerce: Accounting degree?
2. Have you taught at another university in an accounting or similar programme?
3. Do you have professional accounting work experience?
  - If 'yes', how many years?
4. What factors, in your opinion have contributed to pervasive skills coming to the fore in the accounting profession/discipline?
5. From your observations and interactions with the final year accounting students, do you think they demonstrate excellent pervasive skills, with specific reference to:
  - communication skills,
  - critical thinking,
  - decision-making skills,
  - problem solving skills and
  - stress management skills? Please explain.
6. Do you think that pervasive skills enhance the application of technical discipline (accounting) knowledge in a professional work setting?
7. What factors academic and non-academic support/hinder effective development of pervasive skills by accounting students?
8. Do you think that the development of pervasive skills by accounting students is your sole responsibility? If not, which other parties/structures must be involved?
9. Do you think that the academic performance of accounting students may be affected by the selective pervasive skills (communication skills, critical thinking, decision-making skills, problem solving skills and stress management skills? Please explain.
10. Do you believe that final-year accounting students should be considering how work-ready they are for professional career in accounting?
11. In your opinion, does a relationship between pervasive skills and work-readiness exists?
12. Do you think it is fair to assume that most final-year accounting students have experienced academic stress?
13. On a scale of 1 to 5 (1: completely disagree to 5: completely agree), how would you rate your agreement/disagreement with the following statements:
  - 13.1 "An accounting student's pervasive skills level may give an indication of how work-ready the student is for a professional career in accounting"

- 13.2 'The academic performance of accounting students may be affected by their pervasive skills'.
- 13.3 'There is a relationship between an accounting student's academic stress and their pervasive skills'
- 14. From the list of pervasive skills provided, please select pervasive skills that you think contribute to/ play a role in:
  - 14.1 Academic performance of accounting students
  - 14.2 Management of academic stress by accounting students
  - 14.3 Work-readiness for entry-level professional accounting work

## ANNEXURE 6: INFORMED CONSENT LETTER (PARTICIPANTS)

### Informed Consent Letter

Dear Participant,

My name is **Favourite Mhlongo (Student Number: 954060236)**. I am a PhD candidate studying at the University of KwaZulu-Natal, Westville Campus. The title of my research is: *The role of pervasive skills in the academic and professional preparation of accounting students in the University of KwaZulu-Natal.*

The aim of the study is to explore the relationship between the pervasive skills levels of prospective entrants into the accounting profession and their academic performance, academic stress and work-readiness. The study also seeks to identify pervasive skills ranked highly for entry-level professional accounting employment and factors that affect the development of pervasive skills.

I am interested in interviewing you so as to share your experiences and observations on the subject matter.

Please note that:

- The information that you provide will be used for scholarly research only.
- Your participation is entirely voluntary. You have a choice to participate, not to participate or stop participating in the research at any time. You will not be penalized for taking such an action.
- Your views in this questionnaire/interview will be presented anonymously and will be treated with utmost confidence. Neither your name nor identity will be disclosed in any form in the study.
- The questionnaire/ interview will take about 45 minutes.
- The record as well as other items associated with the interview will be held in a password-protected file accessible only to myself and my supervisors. After a period of 5 years, in line with the rules of the university, it will be disposed by shredding and burning.
- If you agree to participate please sign the declaration attached to this statement (a separate sheet will be provided for signatures)

I can be contacted at: School of Education, University of KwaZulu-Natal, Edgewood Campus, Pinetown. Email: [mhlongof1@ukzn.ac.za](mailto:mhlongof1@ukzn.ac.za)  
Cell: 071 877 9649

My supervisors are:

Dr Msizi Mkhize who is located at the School of Social Sciences, Howard College Campus/ Howard College Campus of the University of KwaZulu-Natal. Contact details: email [Mkhizem4@ukzn.ac.za](mailto:Mkhizem4@ukzn.ac.za) Phone number: (031) 260 2141

Professor Mabutho Sibanda who is located at the School of Accounting, Economics and Finance, Westville Campus, Durban of the University of KwaZulu-Natal. Contact details: email: [Sibandam@ukzn.ac.za](mailto:Sibandam@ukzn.ac.za) Phone number: (031) 260 2160

The Humanities and Social Sciences Research Ethics Committee contact details are as follows: Ms Phumelele Ximba, University of KwaZulu-Natal, Research Office, Email: [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za), Phone number +27312603587.

Thank you for your contribution to this research.

DECLARATION

I..... (*Full names of participant*) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire. I understand the intention of the research. I hereby agree to participate.

I consent / do not consent to have this interview recorded (if applicable)

SIGNATURE OF PARTICIPANT

DATE

## ANNEXURE 7: GATEKEEPER'S LETTER



11 April 2019

Mrs Favourite Mhlongo (SN 954060236)  
School of Education  
College of Humanities  
Edgewood Campus  
UKZN  
Email: [mhlongof1@ukzn.ac.za](mailto:mhlongof1@ukzn.ac.za)

Dear Mrs Mhlongo

**RE: PERMISSION TO CONDUCT RESEARCH**

Gatekeeper's permission is hereby granted for you to conduct research at the University of KwaZulu-Natal (UKZN) towards your postgraduate studies, provided Ethical clearance has been obtained. We note the title of your research project is:

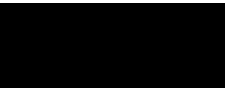
*"The Role of Pervasive Skills in the Academic and Professional Preparation of Accounting Students in the University of KwaZulu-Natal."*

It is noted that you will be constituting your sample by handing out questionnaires, conducting interviews and/or focus group discussions with students who are studying towards a Bachelor of Commerce in Accounting and academic staff members who are currently teaching in the Bachelor of Commerce: Accounting programme.

Please ensure that the following appears on your notice/questionnaire:

- Ethical clearance number;
- Research title and details of the research, the researcher and the supervisor;
- Consent form is attached to the notice/questionnaire and to be signed by user before he/she fills in questionnaire;
- gatekeepers approval by the Registrar.

You are not authorized to contact staff and students using 'Microsoft Outlook' address book. Identity numbers and email addresses of individuals are not a matter of public record and are protected according to Section 14 of the South African Constitution, as well as the Protection of Public Information Act. For the release of such information over to yourself for research purposes, the University of KwaZulu-Natal will need express consent from the relevant data subjects. Data collected must be treated with due confidentiality and anonymity.



**MR SS MOKOENA  
REGISTRAR**

---

**Office of the Registrar**

Postal Address: Private Bag X54001, Durban, South Africa

Telephone: +27 (0) 31 260 8005/2206 Facsimile: +27 (0) 31 260 7824/2204 Email: [registrar@ukzn.ac.za](mailto:registrar@ukzn.ac.za)

Website: [www.ukzn.ac.za](http://www.ukzn.ac.za)



Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

## ANNEXURE 8: EDITORIAL LETTER

25 Maple Crescent  
Circle Park  
KLOOF  
3610

Phone 031 – 7075912  
0823757722  
Fax 031 - 7110458  
E-mail:  
[dr1govender@telkomsa.net](mailto:dr1govender@telkomsa.net)  
[sathsgovender4@gmail.com](mailto:sathsgovender4@gmail.com)

# Dr Saths Govender

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1 DECEMBER 2021

TO WHOM IT MAY CONCERN

### LANGUAGE CLEARANCE CERTIFICATE

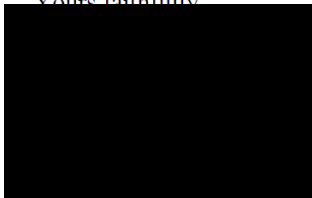
This serves to inform that I have read the final version of the thesis titled:

The role of pervasive skills in the academic and professional  
preparation of accounting students in the University of KwaZulu-  
Natal  
by

**Favourite Mhlongo**  
(Student No.: 954060236)

To the best of my knowledge, all the proposed amendments have been effected and the work is free of spelling and grammatical errors. I am of the view that the quality of language used meets generally accepted academic standards.

Yours faithfully,



**DR S. GOVENDER**  
B Paed. (Arts), B.A. (Hons), B Ed.  
Cambridge Certificate for English Medium Teachers  
MPA, D Admin.

## ANNEXURE 9 – ETHICAL CLEARANCE



02 September 2019

Mrs Favourite Mhlongo (954060236)  
School Of Acc Economics&Fin  
Westville Campus

Dear Mrs Mhlongo,

**Protocol reference number:** HSSREC/00000134/2019

**Project title:** The role of pervasive skills in the academic and professional preparation of accounting students in the University of KwaZulu-Natal.

### Full Approval – Expedited Application

This letter serves to notify you that your application received on 28 August 2019 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**.

**Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.**

This approval is valid for one year from 02 September 2019.

To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.



\_\_\_\_\_  
(Chair)

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Humanities & Social Sciences Research Ethics Committee  
Dr Rosamary Sibanda (Chair)  
UKZN Research Ethics Office Westville Campus, Govan Mbeki Building  
Postal Address: Private Bag X54001, Durban 4000  
Website: <http://research.ukzn.ac.za/Research-Ethics/>



