The role of the private sector in the promotion of ICT skills development for youth employment in South Africa

By

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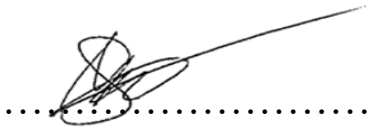
Declaration

I declare that the research project, *The role of the private sector in the promotion of ICT skills development for youth employment in South Africa*, is my own work and that each source of information used has been acknowledged by means of a complete reference. This dissertation has not been submitted before for any other research project, degree, or examination at any university.



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Abstract

In 2000, the South African government implemented the rollout of learnership programmes, however 22 years later the learnership system still faces various challenges which hamper the overall goal of producing a youthful workforce into the jobs market. Learnerships were intended to optimise the employment opportunities of learners through the combination of vocational-theoretical learning and work-based learning.

This study focused on evaluating the role of the private sector in promoting ICT skills development for youth employment in South Africa. The study sought to determine whether the role of the private sector contributed to the promotion of ICT skills development for youth employment in South Africa. Furthermore, an investigation of whether the Sector Education Training Authorities (SETAs), specifically (MICT SETA – senior management team) operational design and interventions provided appropriate decisive involvement in achieving the intended results by the South African government, of partnering with the private sector in funding unemployed youth programmes to bridge the skills gap (scarce and critical skills). The study further examined the meaning of the Theory of Change, upon which the programme logic and purpose of SETAs is based, mainly, MICT SETA. The research was achieved through the implementation of mixed methods research approach. Qualitative interviews were used to collect data from the ICT Industry (mainly, MIA Telecoms, Liquid Telecoms, MicroMega Holdings, Sebata IT Solutions and Labournet), MICT SETA (senior management team) and learnership training providers to gain an understanding of the lived experience of these participants. A quantitative closed ended survey was used to gain insight from learners who had completed their learnerships in 2018. Findings for the interviews conducted for MICT SETA, ICT Industry and training providers indicates a lack of cohesion between industry stakeholders, which is presently evident in the learnership system in South Africa. Quantitative findings indicated that learnership students, although satisfied with the training they received, were not satisfied with the administration of learnerships.

Role clarification should be established between the MICT SETA and IT companies to ensure that these roles are performed appropriately. This study makes it explicitly clear that the

implementation of learnerships in the ICT Industry can only be successful through the participation of the private sector. That is, employers accept their responsibility to train and are prepared to deliver the practical aspect of the Learnership Programme, which as demonstrated by the research is indispensable for developing a cesspool of high-skilled-youthful-workforce into the ICT Industry.

Keywords: Learnership System, Learnership Programmes, Youth Employment, Private Sector, ICT Skills Development, Unemployed Youth, MICT SETA, ICT Industry

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List of Acronyms

ABET:	Adult Basic Education and Training
B-BBEE:	Broad-based Black Economic Empowerment
BCEA:	Basic Conditions of Employment Act
BUSA:	Business Unity South Africa
EEA:	Employment Equity Act
ETQA:	Education and Training Quality Assurance
IPAP:	Industrial Policy Action Plan
LRA:	Labour Relations Act
HSRC:	Human Science Research Council
MICT:	Media, Information, Communication and Technology
NSA:	National Skills Authority
OFO:	Organizing Framework for Occupations
PDI:	Previously Disadvantaged Individuals
PWD:	People with Disabilities
QCTO:	Quality Council for Trades and Occupations
SAQA:	South African Qualifications Authority
SARS:	South African Revenue Services
SDA:	Skills Development Act
SDF:	Skills Development Facilitator
SDLA:	Skills Development Levies Act
SETA:	Sector Education and Training Authority
SSP:	Sector Skills Plan
SIC:	Standard Industry Classification
TNA:	Training Needs Analysis
TVET:	Technical and Vocational Education and Training
4IR:	4th Industrial Revolution/ Digital Revolution

CHAPTER 1

OVERVIEW OF THE STUDY

1.1 Introduction

One of the key challenges facing South Africa is the high level of unemployment, which is a major driver of poverty and social problems (Aurangzeb and Asif, 2013; Alenda-Demoutiez and Mugge, 2020; Khalid, Akalpler, Khan, Shah and Khan, 2021; Makaringe and Khobai, 2018).The deficit of a skilled labour force is considered as one of the major contributors to the rate of unemployment in South Africa (Chandler, 2021; Du Toit and Neves, 2014; Maswanganyi, 2014; Stats SA, 2018). A need to improve multisectoral issues was identified as a means through which South African people could be uplifted to decrease social issues like unemployment and crime (Steyn, Villiers and Twinomurinzi, 2018). However, over the last thirty years, increasing youth unemployment has become a crucial challenge in South Africa, even though the government has embarked on several programmes that provide necessary skills to the youth and ensuring that graduates are linked with work opportunities (Rena and Diale, 2021). The South African government introduced the learnership system, through the enactment of the Skills Development Act, Number 97 of 1998, proposing a dual vocational-training model for work-based learning through accredited training institutions (De Jager, Huster and Hattingh, 2006; Maswanganyi, 2014 and DHET, 2022). The learnership system aims at improving the skills competency of both the previously disadvantaged individuals (PDIs) workers and the unemployed youth, to address the national endemic of unemployment. Sector Education Training Authorities (SETAs) were established as a national government agency to provide a sector specific oversite on all skills development and related activities, viz., sectoral skills planning and strategies, skills interventions funding, monitoring, and evaluation; and sectoral reports to the national government and parliament (DHET, 2022; DOL, 2022 and RSA, 1996).

The Skills Development Act Number 97 of 1998, was introduced by government, to transform the South Africa skills-base landscape (Maswanganyi, 2014). In his assertions Rogan (2019:22), explains that “the main purpose for Skills Development Act was to develop and improve the skills

competency level of the South African workforce by encouraging semi-skilled employees to participate in learnership programmes and artisan programmes. Furthermore, the SDA was also created to encourage employers to use the workplace as a social-learning environment and to provide upskilling opportunities to employees." The Skills Development Act created the basis for equal opportunities in the jobs-market, such that, employers can help new entrants gain work experience by rolling-out on-the-job-training (OJT) interventions through learnerships. To achieve the SDA objectives the South African government created a special purpose agency – SETAs; supported by the National Skills Authority (NSA) – to provide strategic alignment, oversight and to monitor SETAs' performance (Du Toit and Neves, 2014 and McGrath, 2004).

The enactment of the Skills Development Act, Act Number. 97 of 1998, by implication suggests a dual vocational-based-training-model (classroom-based theoretical learning, espoused by the workplace-based practical learning, also known as, experiential learning) resulting in a nationally accredited occupational qualification through the South African Qualifications Authority (SAQA) and later, by the Quality Council for Trades and Occupations (QCTO) (Alenda-Demoutiez and Mugge, 2002; DOL, 2022 and DHET, 2019). Thus, the performance criteria of the learnership system is regulated by the legislative policy framework under the auspices of the Department of Higher Education and Training (DHET) and the NSA (Makaringe and Khobai, 2018 and DHET, 2022)

Maswanganyi (2014) contends that there is little academic research available on learnerships in South Africa as much of the literature and research has been authored by proponents of the model; and Mummenthey (2008:89), Farrel, (2006:26), Fester, (2006:213) and Mathenjwa, (2011:102), support Maswanganyi, in stating that "mainly SETAs, evaluate the success of learnerships on enrolment figures, grants (mandatory and discretionary) disbursement and tax rebate statistics." De Jager *et al.* (2006:48-54), elucidate that "the literature lacks input from learners, employers, and training providers." Accordingly, this research study seeks to cross-evaluate the role of the private sector stakeholders in the learnership process, specifically within the Media, Information and Communication Technologies Sector Education and Training Authority (MICT SETA).

The study focuses on the private sector because the value-proposition of the private sector is to generate sustainable economic growth, whereas the public sector's primary mandate is enabling economic growth by sanctioning policies that support socio-economic development and align capital investment towards bulk-infrastructure improvements (Dearlove, 2011 and Druker, 1994). The Department of Trade Industry and Competition (DTIC, 2018:345-350), explains that "in South African context, the private sector is defined as the part of the economy that is not state controlled, and is owned by individuals, families, and companies in order to make profit. In his assertions Dombroski (2015:31-33), supported by Brown and Hyer (2016:33), Druker (1994:256) and Gagliardi (2013:152), argues that "there are several factors instrumental in driving a sustainable economic growth, for example, the country's ability to attract foreign direct investments (FDI), economic policies, infrastructure development programme, tax laws, political stability, labour market, and among these, the role of human capital is equally significant." Ackoff (1999:321), contributes, by stating that "a highly skilled workforce enables the private sector to increase its productivity, reduce its operational costs, boost profits, and thus, contribute towards local economic growth." According to Michael Potter's ten factors attributed to China's economic boom since the late 1970s; the high capital investment made by China's private sector in the acquisition of essential skills is rated among the top five factors on the list (Porter, 1980; 1985, 2017). This illustrates the indelible role the private sector has in promoting skills development to drive youth employment and sustainable economic growth.

The inception of learnerships resulted in euphoria in the skills development circles as a doubled-edged antidote to unemployment and skills shortage (Mathenjwa, 2011; Mummenthey, 2008; Farrel, 2006). McGrath, Badroodien, Kraak, and Unwin (2004:85-110) explains that the South African private sector adopted the scheme as a solution to meet some of the legislative compliance requirements of conducting business in the local market. As work-based initiative, learnerships have been regarded as the best avenue to address unemployment by providing theoretical knowledge as well as the practical experience that should, ideally, improve employability. As De Jager *et al*. (2006:48-54), Fester (2006:213) and Makaringe and Khobai (2018:61-63) alluded, that "the introduction of tax incentives provided an impetus for industry participation." There have been fears, however that this euphoria might have clouded objective judgment on the satisfaction that all parties derive from the learnership programmes (Hattingh, 2006 and Khalid *et al*., 2021).

As Makaringe and Khobai (2018: 61-63) and Mathenjwa, (2011:102) commented in saying "this high overall level of satisfaction with the learnerships may mask some of the underlying differences in levels of satisfaction across the different strata of the South African labour market."
Makaringe and Khobai (2018:61-63) maintain that "there have been different levels of satisfaction between learnerships for employed and those for unemployed learners. This has been perceived as a reflection of the many oversights that need to be addressed in the learnership model." It is also noteworthy that the literature that is available on learnerships in South Africa has mainly been authored by the advocates of the system, mainly, the SETAs and these writings have evaluated the success of learnerships based on enrolment figures as well as the tax rebates statistics where learnerships were strategically used by employers to claim tax rebates (Chandler, 2021; MICT SETA, 2020; NSDP, 2019 and Merten, 2016)

Those who have lent a critical voice to the model have analysed how the model has been frowned on by the learners, yet at the same time highlighting the perceived success as reported by the SETA statistics (Pillay, Juan, and Twalo, 2011). Typical of such reports would be the conclusion by the Human Sciences Research Council (HSRC) Policy Brief, which purported that SETAs have managed to meet their aggregate targets in rolling out the programmes (Rogan and Reynolds, 2015). This research interrogates the role of the private sector in promoting skills development for youth employment in South Africa. The study sets out to investigate whether the MICT SETA's operational design and interventions provide the requisite contribution in achieving the intended results by the South African government, as articulated in the (SDA, 1998; NSDP, 2019 and NDP, 2030), such as partnership with the private sector in funding youth-oriented programmes that bridge the skills gap and address scare and critical skills (Stats SA, 2019; HSRC, 2020 and MICT SETA, 2019).

1.2 Problem Statement

The COVID-19 pandemic has created a profound disruption to the global market and also to the South African economy and society. In his parliamentary committee address, the South African Minister of Trade, Industry and Competition, Minister Patel, enunciated that "the pandemic has caused a massive and rapid shock on the economy, globally and transmitted rapidly to South Africa and the rest of the continent, with a dual impact on the demand and supply-side of the economy. The impact on GDP will be significant – with a projected recession with severe contraction of the economy in 2020, accompanied by big job losses and firm closures with high levels of social hardship" (DTIC, 2020).

According to Trading Economics (2022), South Africa's unemployment rate eased to 35.4% in the first quarter of 2022, with 7.9 million unemployed persons. The youth unemployment rate, measuring job-seekers between 15 and 24 years old, fell to 63.9% for the first quarter of 2022, compared to 66.5% in the last quarter of 2021 (Trading Economics, 2022). This status has called for investments in skills development programmes by all government, business and educational institutions (Rena and Diale, 2021). The government crafted effective interventions to address youth unemployment, which included learnerships, youth entrepreneurial development programmes, youth service programmes and short-term skills development programmes implemented by the government, civil society and the private sector (Rena and Diale, 2021). The problem, however, is that there is a growing gap between skills training,needs from organisations, government-led initiatives and learnerships have not solved the overwhelming aggregate of the youth unemployment problem (Rena and Diale, 2021).

The scourge of youth unemployment, ever-widening economic-inequality chasm and the rising levels of crime, are the top three most deterring challenges facing the South African economy (Chandler, 2021; DOL, 2022; ILO, 2017 and Stats SA, 2019). Firstly, there are low education and skills competency ratios among the previously disadvantaged black population because of the repressive educational policies of the former apartheid government. Secondly, the increasing number of unemployed youths, and lastly, the aging skilled workforce which is predominantly white (MICT, 2020 and DOL, 2021).

In 2019, Global Competitive Report, South Africa was ranked 97 out of 131 countries, and the deteriorating quality of education and aging skilled workforce were identified as high-risk factors for sustainable economic growth World Economic Forum (WEF, 2019). The skills deficit not only negatively impacts the country's future economic growth, but more importantly, it severely impedes socio-economic transformation, and, thereby, widens the chasm of socio-economic inequality (Stats SA, 2020).

The aim of this study therefore is to cross-examine the role of the private sector in addressing some of these challenges consistent with the role of the private sector in the promotion of ICT skills development for youth employment.

1.3 Rationale

Alenda-Demoutiez and Mugge (2020:19), explain that "South Africa faces a major challenge of unemployment for the last two decades. So, this study seeks to examine some of the contributing factors to this problem in line with the role of the private sector in the promotion of skills development for youth employment." Youth unemployment, according to Rena and Diale (2021), is a lack of access to skills, including work experience, by this cohort, required to move the economy forward. Youth unemployment inhibits economic development and acts as a burden on the government, who must provide social assistance. The South African Government has long recognised unemployment as one of the critical topics to be addressed as part of the Reconstruction and Development Programme (RDP, 1996), in response, SDA (1998) was enacted as the skills planning framework to combat unemployment, skills gaps and skills shortages (RSA, 1996).

However, from the inception of the SETAs in 2001, coupled, with the implementation of learnerships over the past 18 years, the skills system has not delivered as initially expected Mathenjwa, 2011). In 2011, representatives from the organised labour, business South Africa (BUSA), community constituents at NEDLAC, led by the Minister of Higher Education and Training, Dr. Nzimande established a partnership that gave birth to National Skills Accord vol. 1 (NGP, 2011).

The objective of the National Skills Accord was to establish a shared vision for the parties and commit them to contribute towards the attainment of the New Growth Path (NGP) goals actively

and urgently - creating five million jobs by 2020 (NGP, 2011). Organisations think that the youth are weak in their application of acquired knowledge in jobs that seek skills (Rena and Diale, 2021).

Despite all these efforts, according to the MICT SETA (2018), Stats SA (2019) and HSRC (2020), there is low employer participation in the unemployed learnership in this sector. Thus, the study seeks to identify the dominant factors inhibiting the private sector from playing a meaningful role in the learnerships system. The study also sets out to investigate whether the SETAs operational design and interventions provide adequate decisive involvement in achieving the intended results by the national government, that is, meaningful partnerships with the private sector in funding youth-oriented programmes that address sector specific scare and critical skills (Mummenthey, 2008).

McGrath *et al*. (2004:85-110), explicate, in stating that "learnerships are work-based initiatives and are regarded as the best avenue to address unemployment by providing theoretical knowledge as well as the practical experience that should, ideally, improve employability." As per the Skills Development Act, SETAs have been given the role of acting curators of the learnership system and are responsible for preserving the relationships among stakeholders, however research has indicated that SETAs have been incapable of completely undertaking this role (DHET, 2022; Hattingh, 2006 and Fester , 2006). SETAs are responsible for developing Sector Skills Plans (SSPs) which identify scarce and critical skills shortages in each sector, however data on skills development and vocational training is limited and each SETA maintains its own records resulting in inconsistencies and on-going data anomalies (DHET, 2022; Farrel, 2006; Fester , 2006; Mummenthey, 2008; Mathenjwa, 2011 and De Jager *et al.*, 2006). Maswanganyi (2014) maintains that when implemented effectively the learnership system can add undisputed value, however, the model has been criticized as being inefficient and ineffective (Pillay *et al.*, 2011). There are many challenges for SETAs and organisations when implementing learnerships, specifically concerning added value, and there are few guidelines available to assist with the process (Farrel, 2006; Fester, 2006; Mummenthey, 2008; Mathenjwa, 2011 and De Jager *et al.*, 2006).

Other criticisms according to Rogan and Reynolds (2015), and McGrath (2004), are that employers must rely on the state for the majority of learnership training, the interests of business are at most

trivialized, prioritizing unions, community lobbyist groups and the negative perception associated with vocationalism cause failure. Most notably is the fact that there is ongoing confusion over the conceptual framework underpinning learnerships making assessment of learnership impacts difficult to determine (McGrath *et al.* 2004). The state is more interested in outputs than the outcomes of learnership programmes, as a result, there is a constant need to assess whether learnerships and training programmes provided by SETAs are contributing to National Skills Development Plan Goals (McDavid and Hawthorn, 2016 and Pillay *et al.*, 2011). The efficacy of learnerships is reliant on the contribution of all stakeholders from policy implementation to learnership beneficiaries (MICT SETA, 2020; Bakhshi, Downing, Osborne and Schneider, 2017).

Though, there are several studies and research efforts on the efficiency and effectiveness of the SETA's for instance (Singh, 2007; Mummenthey, 2008; Reddy, 2012 and Mathenjwa, 2011), the skills deficit, and training needs have been undertaken by the SETAs (MICT SETA, 2012), as well as by external researchers (Singh, 2007). These studies are mainly concerned with the status of skills, the constraints, estimating shortages, highlighting the importance of an effective implementation, and monitoring and evaluation (MICT SETA, 2012). However, there is limited evidence of an in-depth analysis on the role of the private sector in promoting skills development for youth employment (Cosser, 2012 and Khalid *et al.*, 2021).

Despite the introduction of learnerships and skills development programmes, the youth remain unemployed, manifesting in socio-economic effects and frustration on the part of unemployed youth which is evident through the emergence of xenophobic attacks, formation of partisan vigilante groups, escalating crime rate, social unrest, and violent service delivery protests (Rena and Diale, 2021; Du Toit and Neves, 2014 and DOL, 2021). Therefore, it is anticipated that this study will provide a sound basis for an impactful participation of the private sector in developing ICT skills in South Africa. As part of the secondary objectives of the study, the obstacles of the private sector will be mapped to develop instruments necessary for the creation of an efficient model which can be recommended as an alternative to the status quo.

1.4 Private Sector

South Africa's economy is traditionally rooted in the primary, secondary, and tertiary sectors such as Mining, Manufacturing, Agriculture, Communications, Tourism, Wholesale and Retail, Finance and Business Services, and Investment Incentives (Bureau for Economic Research, 2020; Alexander, Britton, Jorissen, Hoogendoorn, and van Mourik, 2014 and Arthur, 2021). Recent decades have seen a structural shift in the performance of primary sectors both locally and globally (World Bank Group, 2020; World Economic Forum, 2019). As a result, since the early 1990s, economic growth has mainly been driven by the tertiary sector, for instance, wholesale and retail, tourism, and communication (Stats SA, 2020; DTIC, 2020 and BER, 2020).

Currently, South Africa is moving towards becoming a knowledge-based economy, with a greater focus on technology, e-commerce and finance, and specialized business solutions (McKinsey and Company, 2018; Stats SA, 2020; DTIC, 2020 and BER, 2020).

Owing to the changes in the dominant sector driving economic growth in South African, and the widespread scope of the term "private sector" in the light of the stated objectives of this study, namely, the role of the private sector in the promotion of skills development for youth employment, it is necessary to restrict the study by focusing on the Information Technology (IT) sub-sector and the relevant SETA which is the Media, Information, Communication, and Technology (MICT) SETA. This definition allows the researcher to collate relevant qualitative secondary data, for the purpose of evaluating the role of the private sector, specifically, the Information Technology (IT) companies, based in Gauteng Province.

Regional focus (Private Sector- ICT Companies): the study focuses on the private sector – IT companies in Gauteng Province, with supplementary information from the leading representative organisations in the Information Technology sub-sector. Historically, the Gauteng Province has made a greater contribution in promoting skills development for the previously disadvantaged youth compared to other regions (Du Toit and Neves, 2014).

According to the MICT SETA, Sector Skills Plan (2021), the participation of the private sector through the submission of the Workplace Skills Plan (2016-2017) is the highest in Gauteng.

Therefore, it can be conjectured that a study based in Gauteng, which is one of the most experienced contributors to the promotion of skills development, could provide significant information for the study. The below Figure 1.1 presents the MICT sector size based on the number of employer organizations per province.

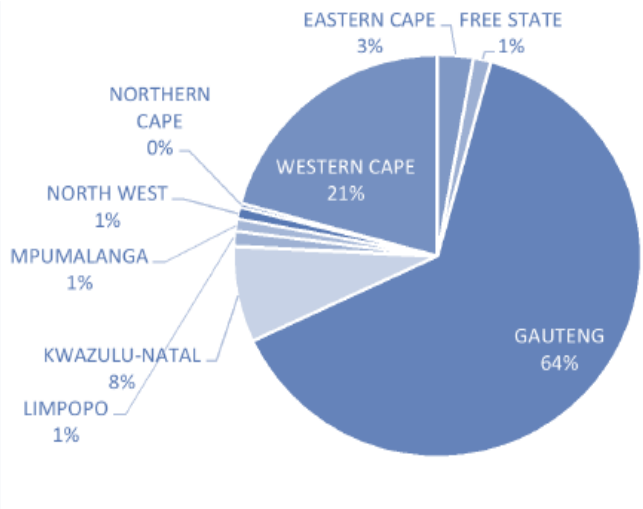
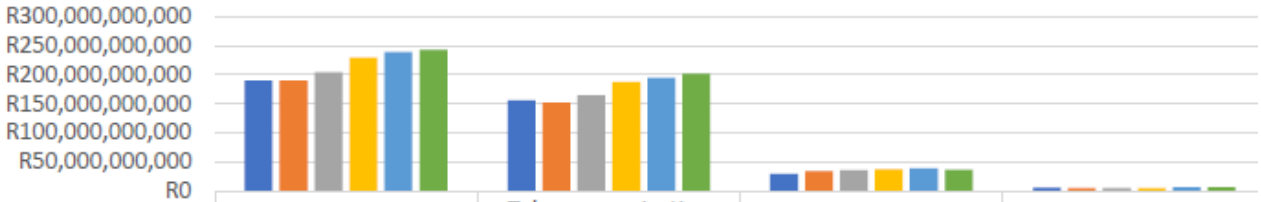


Figure 1.1: MICT Sector Employer Per Province (MICT SETA SSP, 2021)

1.5 ICT Industry and Information Technology (IT) Sub-Sector Trends

The Independent Communications Authority of South Africa (ICASA, 2019) report explains that the Information Technology sub-sector is an integral part of the Information Communication Technology Industry in South Africa (MICT SETA, 2018 and DTIC, 2020). The IT sub-sector is characterised by world-class organisations and services like IBM, Microsoft, Apple, Dell, Sahara, and HP (Marx, de Swardt, Beaumont, and Erasmus, 2009 and WEF, 2019). According to Stats SA (2018), South Africa's ICT industry is the largest in Africa, contributing approximately 8.2 percent to GDP. In the 2018 financial period the sector recorded a total revenue of R229 billion with a forecasted revenue of R273 billion by 2021 (DTIC, 2020 and ICASA, 2020).

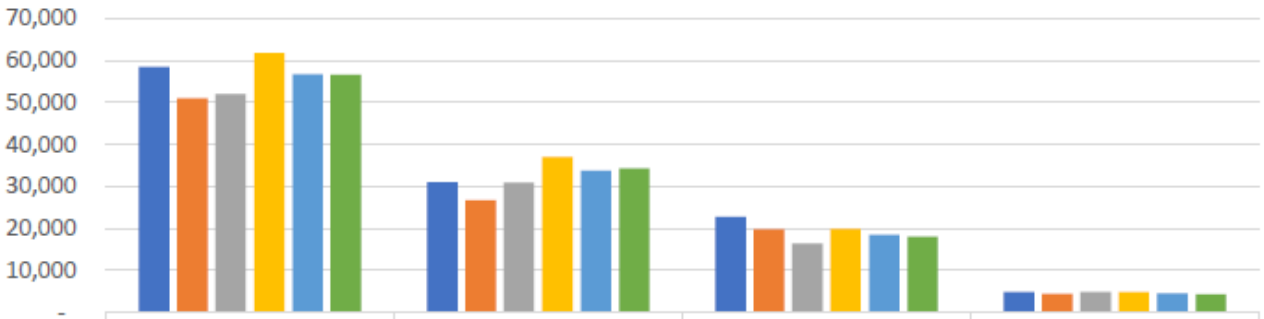
However, due to the emergence of COVID-19 in global markets, and the subsequent government action (business lockdown regulations), the sector yielded a total revenue of R243 billion by the end of 2020 period (ICASA, 2021 and Stats SA, 2021). Figure 1.2 shows a six-year financial performance of the ICT industry.



	Total sector revenue	Telecommunication revenue	Broadcasting revenue	Postal revenue
2015	R189,727,239,150	R155,731,039,861	R28,688,718,290	R5,307,481,000
2016	R190,044,525,308	R151,569,024,076	R33,655,415,072	R4,820,086,160
2017	R204,386,608,276	R163,987,306,320	R35,606,415,286	R4,792,886,670
2018	R229,296,293,291	R187,587,374,843	R36,921,489,746	R4,787,428,702
2019	R238,351,239,862	R194,284,132,172	R38,325,761,969	R5,741,345,721
2020	R243,019,264,975	R201,254,592,538	R35,814,897,915	R5,949,774,522

Figure 1.2: 6-Year ICT Sector Performance (ICASA's Report – ICT in SA, 2021).

1.5.1 ICT Employment Trend



	Total Combined employment for 3 sector	Telecommunication employment	Postal employment	Broadcasting employment
2015	58,411	30,951	22,671	4,789
2016	50,899	26,669	19,801	4,429
2017	51,993	30,881	16,312	4,800
2018	61,757	37,063	19,881	4,813
2019	56,709	33,782	18,464	4,463
2020	56,550	34,329	17,984	4,237

Figure 1.3: ICT Sector 6-Year Employment Trend (ICASA's Report, 2021).

According to ICASA (The State of the ICT Sector Report in South Africa, 2021), the estimated number of people employed by the ICT industry is 56 550 in 2020 (ICASA, 2021 and Stats SA, 2021). Over a six-year period, the total sector employment decreased by 0.6 percent (Stats SA, 2021 and MICT SETA, 2021). The above Figure 1.3 shows the ICT industry employment trends from 2015 to 2020, broken down to three major categories, that is, Telecommunication, Postal Services, and Broadcasting.

Demographics: The study focuses on participants between the ages of 18 to 35 years, from previously disadvantaged communities, in Gauteng, Soweto area. The scope of research is restricted to black African participants as defined by the Broad-Based Black Economic Empowerment Codes of good practice (B-BBEE, 2003). B-BBEE Codes of Good Practice (2003), define black in the South African context as (African, Coloured, and Indian persons) who obtained

South African citizenship through birth or were already South African citizens before the 1994 National Elections (DTIC, 2018 and DOL, 2022).

1.6 Research Aim, Question/s and Objectives

The aim of this study was to investigate the current state of the learnership system in the ICT industry (IT subsector) and to identify critical factors contributing to its efficient and effective implementation or lack thereof. The main research question is therefore, "What is the current state of the learnership system in the ICT industry and what are the critical factors contributing to its efficient and effective implementation or lack thereof"?

The following objectives will assist in achieving the overall aim:

1. To analyse the learnership system in the ICT industry by means of a literature review.
2. To investigate the functions of stakeholders involved in the learnership system in the ICT Industry by analysing relevant literature.
3. To determine the critical factors that contribute to the efficient and effective implementation of the learnership system through the collection of qualitative and quantitative data from all relevant stakeholders involved in the learnership system in the ICT industry.
4. To interpret results of thematically analysed qualitative data collected from MICT SETA, ICT companies and training providers to identify the experiences of these stakeholders within the learnership system.
5. Interpret results from empirical analysis of data collected from learners upon completion of an ICT learnership programme to evaluate the learner experience within the learnership system.
6. To draw conclusions and make recommendations regarding the effectiveness and efficiency of the learnership system in the ICT industry.

To address the main research question, the following secondary questions were considered:

a. What, according to the stakeholders in the skills development sector (SETA's, training providers, learners, and private companies), were the primary obstacles observed as hindrances impacting the efficiency and effectiveness of the private sector in promoting ICT skills development as an enabler in the employment of the youth?

b. What should the new model or approach be, to be established to improve the effectiveness of the private sector in promoting ICT skills development for youth employment?

1.7 The Scope and Limitations of the Study

If the study were to cover a wide-ranging topic like the South African private sector at large, the data collection process for such a study would lead to an overwhelming amount of irrelevant information. Thus, such irrelevant data could lead to a lack of specific details, with inevitable deviation from the set objectives of the study which is to investigate the role of the private sector in promoting ICT skills development for youth employment. Therefore, the study will be restricted to the implementations of learnerships in the MICT SETA industry, with a primary focus on Gauteng Province-based Information Technology (IT) employer organisations, learners on learnerships, and training providers.

1.8 Chapter Summary

This research evaluates the role of the private sector in promoting ICT skills development for youth employment in South Africa. The study seeks to determine to what extent the role of the private sector contributes to the promotion of ICT skills development for youth employment in South Africa. The focus is on the private sector because the value-proposition of the private sector is to generate sustainable economic growth, whereas the public sector is mandated to enable economic growth by sanctioning policies in keeping with economic growth and aligning capital investment for bulk-infrastructure enhancement (Fester , 2006; HSRC, 2020 and Khalid *et al.*, 2021).

Therefore, it is anticipated that this study will provide a sound basis for impactful participation of the private sector in developing skills in South Africa. As part of the secondary objectives of the study, the obstacles of the private sector will be mapped to develop instruments necessary for the creation of an efficient model which can be recommended as an alternative to the status quo (Akoojee, 2008 and Alenda-Demoutiez and Mugge, 2020).

Chapter 1 begins by assisting the reader to gain a deeper understanding of the structure and organisation of learnerships between the relevant stakeholders, namely, MICT SETA, the ICT Industry, training providers and learners undertaking learnerships. The current structure and implementation of skills development levies and administration involved in identifying the necessary skills shortage gaps are not considered, which is evident in the mismanagement of skills development levies, the lack of a control systems identifying students in need of assistance as opposed to those hopping from one programme to the next based on stipend rates.

Chapter 2 provides a review of the mandated government documents associated with lernerships. A critical review of the relevant strategies and plans was presented with the aim of developing the necessary basis from which to conduct this research. Relevant literature related to the learnership system in South Africa was presented.

Chapter 3 provides the research design and methodology implemented for the research study. The research paradigm is presented and discussed in the context of the current research topic and is followed by a detailed discussion of the research design, methodology, data collection method and method of data analysis.

Chapter 4 reports on the qualitative and quantitative findings of the study. The themes identified from qualitative thematic analysis are interpreted and discussed on the context of proposed stakeholder policies. The empirical quantitative data collected from learners presents a demographic profile of learners and provides a Spearman's Rank Order Correlation, identifying the statistically significant relationships between variables. Statistical data is then interpreted in the context of the research topic and sample and aligned to mandated policy documents. The chapter concludes with a synthesis of the mixed-method findings.

Chapter 5 provides the conclusions and recommendations for the research study. The research aim and objectives are addressed and conclusions of the findings are presented. Recommendations for various learnership stakeholders are presented and recommendations for future research suggested.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter reviews previous literature on learnerships in South Africa, as well as an analysis of the government mandated documents and policies related to the learnership programme and the involvement of all key stakeholders. The purpose of this review is to link between the mandated government policies proposed for the effective and efficient implementation of learnerships in the attempt of addressing the ICT skills development for youth unemployment in South Africa. Prior to the review of current literature, it is important to establish the stakeholders involved in the implementation of learnerships as well as each stakeholders' roles and responsibilities in the system by reviewing the various national sector skills plans review chapter stems from several secondary data sources, about the subject of the study which is the role of the private sector in the promotion of ICT skills development for youth employment in South Africa. In achieving the objectives of the study, references to the definition of skill development, the classification of skills in South Africa. The theory of on the legislative framework that provides for the learnership system, as a mode or intervention in addressing the skills gap, is also discussed. The researcher further demonstrates the concept of private sector programmes ICT Industry (mainly, IT sub-sector), the purpose of the SETAs and the associated legislative institutions. Lastly, the chapter provides specific insight on the private sector learnership programmes and characteristics.

The chapter begins with a systematic review of the skills regulatory framework as an analysis of policy and legislative intent at the macro-level is a necessary first step to building a systemic understanding of the constraints and facilitators in the current skills development system towards addressing poverty, inequality, and unemployment (Reddy, Wildschut, Luescher, Petersen and Rust, 2018). This is an important part of existing literature, which begins with an understanding of the policy and regulatory framework, without which an understanding of the learnership system is not possible.

The term/s "learnership or learnerships – (both singular and plural designation)" are used interchangeably throughout the study, and this is supported by other researchers in the field, such as (Akoojee, 2008; Aurangzeb and Asif, 2013 and Mummenthey, 2008). This section will also discuss the general structure of the learnership system which includes the legislative framework, related government regulations, the national strategies linked to the learnership system, and the participation of the private sector according to the regulation. The historical and methodological background of skills development policy will be discussed, to demonstrate the natural progression of events which led to the enactment of the current SDA dispensation – learnership system. The challenges faced by South African's private sector (particularly, IT sub-sector), in implementing learnerships for the unemployed youth.

2.2 Skills Development

Skills development is a compound technical terminology and therefore, is quite complex, sophisticated, and multifaceted (Bakhshi *et al.*, 2017). So, to gain insight on what the terminology "Skills Development" means, the study must, firstly discuss each individual element that makes up the compound designation "Skills Development" as per the South African narrative. The following sub-sections are provided to help define the term "Skills Development" according to the South African context:

2.2.1 What are skills?

The Merriam Webster Dictionary (1828:1053) dictionary defines a skill as "the ability to use one's knowledge effectively and readily in execution or performance of a task or duty. A learned ability to perform a duty, task, or activity completely. A developed aptitude or ability to perform and complete an assigned duty." Cosser (2012:26), purports that "a skill is the ability to undertake new roles in order to achieve the specified outcomes of the occupation successfully."

Senge (1990); Akoojee (2008), and Kwauk and Braga (2017), defined Skill as "the ability to display behaviour and knowledge which is aimed at obtaining a particular goal. All these authors are of the view that the skill possessed by an individual is an enablement or one's ability to achieve the predetermined objectives." De Jager *et al.* (2006), agree that key to the concept of skill is the capacity acquired through education and training or learning, with the aim of fulfilling specific

goals. Therefore, skills development means a systematic approach to achieving the needed human resource capability through formally or informally facilitated learning for the attainment of predetermined objectives (Erasmus, 2002; Mathenjwa, 2011 and UNESCO, 2016).

2.2.2 Classification of Skills (OFO)

Reddy, Rogan, Mncwango, and Chabane (2018:52), explain that "the South African government through Statistics South Africa adopted the ILO's International Standard Classification of Occupations (ISCO 8) framework to construct the South African Standard Classification of Occupations (SASCO). However, this classification system was found limited and lacked detailed information for effective skills planning. Thus, later the government developed the Organising Framework for Occupations (OFO)." According to McGrath *et al.* (2004:85-110) and DHET (2022:15), "the OFO framework is a skills-based, and coded classification system of occupations which is used by the South African government through DHET and DOL."

Mathenjwa, (2011:102), elaborates more, stating that "the OFO captures almost all occupations in the country and classifies them by skill level and skill specification. The OFO is a very useful skills planning information instrument and its generally used by all SETAs to gather data for sector skills planning and also by employers to collate data for workplace skills plans." The OFO is defined by occupational groups, National Qualifications Framework (NQF) levels and skills level (see the below Figure 2.1).

<table>
<tr><th>NSDS</th><th>NQF-level</th><th>Skill level</th><th colspan="4">OFS-major groups</th></tr>
<tr><td rowspan="2">High</td><td>10 ↑ 7</td><td>4</td><td colspan="3">2
Professionals</td><td>1
Managers</td></tr>
<tr><td>6</td><td>3</td><td colspan="3">3
Technicians and associate Professionals</td><td rowspan="2"></td></tr>
<tr><td rowspan="2">Intermediate</td><td>5</td><td rowspan="3">2</td><td rowspan="3">4
Clerical Support workers</td><td rowspan="3">5
Service and Sales workers</td><td rowspan="3">6
Skilled agricultural, forestry, fishery, craft and related trade workers</td><td rowspan="3">7
Plant & machine operator and assemblers</td></tr>
<tr><td>4</td></tr>
<tr><td rowspan="2">Entry</td><td>3</td></tr>
<tr><td>2</td><td rowspan="2">1</td><td colspan="4" rowspan="2">8
Elementary occupations</td></tr>
<tr><td>1</td></tr>
</table>

Figure 2.1: OFO Groups and Skills Levels

2.2.3 System structures, concepts, and principles

To effectively discuss the South African skills development (specifically, learnership system) setting, first, there must be an understanding of the essential contextual concepts that establishes the basis for the system, such as, government regulations, planning frameworks, legislative institutions, and agencies. The following sub-sections will provide an in-depth discussion on the government legislation, SETAs, SAQA, QCTO and NQF.

2.2.4 Legislation

The learnership system is not only influenced by national strategies and interventions, but it is regulated by the legislation. In chapter 1, the study discussed the Skills Development Act and explained that it governs the entire South African education and training continuum. For that reason, the South African government enacted several regulations to support the Skills Development Act. The following list presents a summarized overview of these acts and their primary functions.

1. **Skills Development Act, Number 97 of 1998 (SD Act):** Provides for the establishment of the SETAs, NSA, QCTO and regulates the implementation of skills development (learnership system).
2. **Skills Development Levies Act, Number 9 of 1999 (SDL Act):** Provides for the establishment of the NSF and to administer skills development funding (learnerships).
3. **South African Qualifications Authority Act, Number 58 of 1995 (SAQA Act):** Development and Implementation of the NQF, to systematically organisation occupations for the implementation of learnerships.
4. **National Qualifications Framework Act, Number 67 of 2008 (NQF Act):** Provides for the establishment of the QCTO and quality assurance of qualifications. To provide quality assurance to learnerships.
5. **Further Education and Training Act, Number 98 of 1998:** Provides for the establishment and governance of public and private TVET and CET Colleges. For the implementation of learnerships.

6. **Employment Equity Act, Number 55 of 1998 (EE Act):** Provides for equal opportunities and fair treatment of workers and that all workers are provided career development opportunities. To make learnerships available to workers (including, people with disabilities (PWDs)).
7. **Broad-Based Black Economic Empowerment Act, Number 53 of 2003 (B-BBEE Act):** Provides for economic transformation to enable meaningful participation of black people in the economy. To streamline investment towards the designated groups (Africans, Coloured's and Afro-Asiatic, Indians).
8. **Basic Conditions of Employment Act, Number 75 of 1997 (BCOE Act):** Provides for employment services, that is, counselling workers on career choices and assistance with education and training opportunities. To rollout learnership as a career development channel.
9. **Labour Relations Act, Number 66 of 1995 (LR Act):** Provides for effective Talent Management, promotes employee engagement, job satisfaction and eliminates abuse in the workplace. To implement learnerships to enhance employer – employee engagement.
10. **Occupational Health and Safety Act, Number 85 of 1993 (OHS Act):** Provides the resources necessary to prevent hazards in the workplace by training worker on safety regulations and controls. To implement learnerships to create a safe working environment.

2.3 SETAs

McGrath *et al.* (2004:85-110), elucidate that "the Sector Education and Training Authorities (SETAs) are the key implementation agency for the national government in all matters related to planning, designing, monitoring, and evaluating sector specific skills development interventions." Presently, there are twenty-one SETAs, overseeing education and training activities in all major sectors and sub-sectors of the South Africa economy (DHET, 2022). The designated SETA responsible for education and training in the Information Technology (IT) sub-sector is the Media, Information, Communication, Technology SETA (MICT SETA).

2.3.1 The responsibilities of SETAs

As De Jager *et al*. (2006:48-54) and Maswanganyi (2014:33), suggested earlier "that SETAs are regulated by the Skills Development Act.)" The following are the primary responsibilities of the SETAs as per the Skills Development Act, Number 97 of 1998 (chapter/section 3):

SETAs must:

1. Develop a Sector Skills Plan (SSP) within the framework of the National Skills Development Strategy (NSDS), was changed in 2019, to the National Skills Development Plan (NSDP).
2. Implement its sector SSP by:
    2.1. Establishing learnerships.
    2.2. Approving Workplace Skills Plans (WSPs).
    2.3. Allocating grants in the prescribed manner to employers, education, and training providers.
    2.4. Monitoring and evaluating education and training in the sector.
3. Promote learnerships by:
    3.1. Identifying workplaces for practical work experience.
    3.2. Supporting the development of learning materials.
    3.3. Improving the facilitation of learning.
    3.4. Assisting in the conclusion of learnership agreements.
4. Register learnership agreements and upload learners on NLRD.
5. Administer and disburse the skills development levies in the sector.
6. Liaise with the National Skills Authority on:
    6.1. The National Skills Development Policy
    6.2. The National Skills Development Strategy, later changed to, National Skills Development Plan
    6.3. Development and implementation of its SSP
7. Report to the Director General on:
    7.1. Its income and expenditure
    7.2. The implementation of its SSP
8. Liaise with the employment services of DOL:
    8.1. About employment opportunities.
    8.2. Between education and training providers and the labour market.

2.4 Sector Skills Plan (SSP)

De Jager *et al.* (2006:48-54), specify that "SSP is a five-year sector education and training skills development comprehensive plan prepared by SETAs. The purpose of the SSP is to monitor the supply and demand of skills in the sector, disburse funding to address the skills-gaps, monitor and

evaluate all skills development activities in the sector." Gamble, McGrath, and Badroodien (2004:42-44) and Cosser (2012:26), explain that "through the implementation of the SSP, SETAs contribute substantially towards the national government's socio-economic development strategies, such as, New Growth Path (NGP), National Development Plan (NDP), and National Skills Development Plan (NSDP) previously known as (NSDS i-iii)." SETAs are required to update the SSP on an annual basis to provide DHET and the industry up-to-date trends on skills demand and supply and to report on performance (DHET, 2022 and MICT SETA, 2021).

Other researchers in the education and training field, such as (Maak and Pless, 2006:23; Mathenjwa, 2011:102 and Mummenthey, 2008:89), all agree, clarifying that "to assist SETAs in the process of compiling the SSP, employer organisations submit their unique annual skills development strategy known as the Workplace Skills Plan (WSP), on or before 30 April. The WSP report contains four modules, which helps to simplify the consolidation process of the WSP's into one sectorial-implementable business plan – SSP. The first element of the WSP focuses on the legislative framework of the organisation, namely, company registration information, levy number, company address, and the total number of staff employed (SDA, 1998). The second element contains the training interventions implemented by the company both for its staff and for the unemployed youth."

2.5 Workplace Skills Plan and Annual Training Report (WSP)

The SETAs' primary source of data on industry skills development trends is the Workplace Skills Plan (WSP) (Naidu, 2019 and PSETA , 2021). Akoojee (2008:28), postulates that "the WSP provides a detailed narrative of individual employer organization's performance, challenges, and changes in promoting skills development for employees and unemployed youth in a specific point in time. That is, in that specific reporting period. Moreover, the annual submission of WSP reports help SETAs determine vital industry patterns such as industry growth or shrinkage. The reports help to establish the number of people employed by the sector with relevant demographic features, such as, location (national, provincial, and regional), age, race, gender, disability status, position in the organization, skills level, and income bracket."

2.6 National Qualifications Framework (NQF)

Makaringe and Khobai (2018:61-63), justify that "the National Qualifications Framework (NQF) is the effective framework in catapulting South Africa to become a life-long-learning cultured society." Rogan (2019:22), purports that "the National Qualifications Framework (NQF) was adopted by the South African government through the enactment of the National Qualifications Framework Act, Number. 67 of 2008 (NQF Act). The NQF was implemented to give access, mobility, progression, career path, and personal development of learners across all sectors and subsectors of the South African economy." Mathenjwa, (2011:102), Cosser (2012:26), and Steyn *et al*. (2018:15-23), all agree, by stating that "the NQF creates an integrated national framework for learning achievements. It facilitates access to, and mobility and progression within education, training, and career paths. It is geared to enhance the quality of education and training. The NQF functions as a bridge in accelerating the redress of unfair apartheid policy of discrimination in education, training, and employment, and career opportunities. It contributes to full development of the individual and supports socio-economic development objectives." Figure able 2.2 below shows the NQF Levels in South Africa.

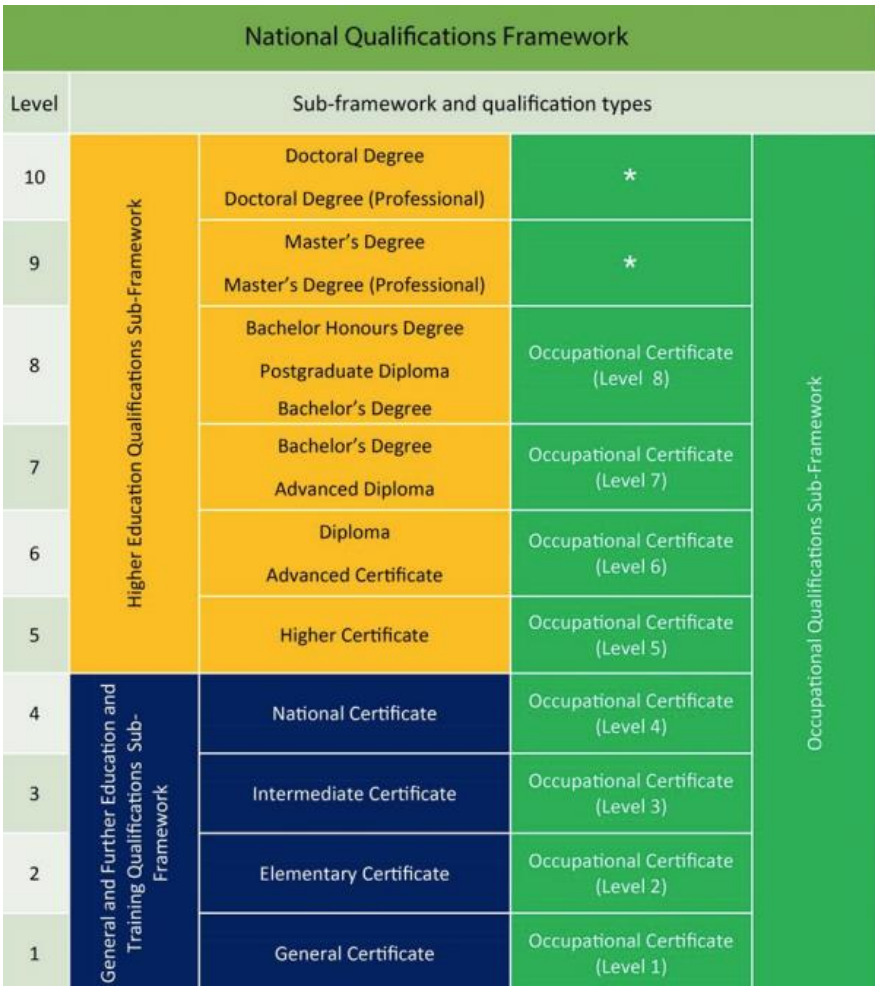


Figure 2.2: National Qualifications Framework (NQF)

2.7 South African Qualification Authority (SAQA)

The South African Qualification Authority is the central 'quality authority' to the entire education and training system in South Africa (DHET, 2019). Established by the South African Qualifications Authority Act, No. 58 of 1995 (SAQA Act). According to Erasmus (2002:29) and Bakhshi *et al.* (2017:72), "the primary mandate of the SAQA is to provide quality assurance to the education and training system, across-the-board, by overseeing the successful design, development, and implementation of the National Qualification Framework (NQF)." Mummenthey (2008:89) elaborates more "that owing to its dual role as a primary quality assurance body for education and training, it is therefore, accountable to the DHET."

Mertler (2016:39) and Mathenjwa (2011:102), also contribute in saying that "the dual role of the SAQA is to: register national qualifications and their learning standards on the National Qualifications Framework and to monitor and ensure the quality of learning. That means, all education and training is delivered to enable the learner to achieve the qualification and/ or the unit standards registered on SAQA qualifications national database."

2.8 Quality Council for Trades and Occupations (QCTO)

The QCTO is a Quality Council established in 2010 in terms of the Skills Development Act (DHET, 2019). Du Toit and Neves (2014:103-105) justify that "the role is to oversee the design, implementation, assessment, and certification of occupational qualifications on the Occupational Qualifications Sub-Framework (OQSF). The QCTO is one of three Quality Councils (QCs), namely (QCTO, Umalusi, and Council for Higher Education – (CHE), responsible for a part of the National Qualifications Framework (NQF). Collectively, the Quality Councils and the SAQA are mandated with the advocacy of the NQF and to oversee its development and implementation."

2.9 Previous Literature

Literature related to learnership programs, as defined in this study, and not considered work-place-training for the purposes of obtaining a formal higher education qualification, are scarce. Many articles presented on this topic form part of larger report undertaken by various Research Council's or NGO reports. The review of literature therefore attempts to provide the results of published academic research, where possible, followed by Industry, NGO, and Research Council Reports.

The aim of establishing SETAs was to improve the efficiency and strategic sectoral training interventions, further establishing industry specific SETAs with the goal of promoting and coordinating skills development initiatives and strategic sectoral training interventions (Mothabi and Vyas-Doorgapersad, 2022). SETAs, established in terms of the Skills Development Act, 97 of 1998, were launched amid much fanfare and expectation of delivery towards achieving a skills revolution in the country (Grawitzky, 2007).

Historically, the South African skills development community and its stakeholders have consistently expressed their dissatisfaction with the SETAs owing to poor performance, maladministration, fraud, and corruption (Barclay and Cloete, 2013). SETA boards are rife with

conflicts due to opposing expectations, political mandates, and infighting spilling to the rest of the organization (Mathenjwa, 2011). SETA constitutions have been found to be too weak to govern stakeholders' interests and give proper direction to the implementation of skills development (Mathenjwa, 2011).

Levels of training in South Africa are presently measured through skills levy payments and the disbursement of training grants to companies that develop workplace skills plans (Badroodien, 2004). However, it was found that despite the number of private firms paying the skill levy has increasingly risen, however approximately 10 percent of firms in South Africa are paying roughly 90 percent of the collected skills levies (Badroodien, 2004). The major concern is that 87 per cent of the available funds for grant disbursement are allocated to SETAs and the disbursements of funds back to training providers is extremely slow, with around 20 percent of these training providers claiming back levies by accessing the skills training grants (Cosser, 2012). According to the MICT SETA Annual Report for 2018-2019, the entity received R867 million in skills development levies, paying mandatory grants of R167 million (which is a woeful increase of 9% paid the prior year). Incomprehensively, the audited financial statements of MICT SETA reflect R89 million in irregular expenditure. According to the MICT SETA Annual Report for 2019-2020, they received R996 million in skills development levies of which R175 million was paid out, with irregular expenditure totalling R152 million, a 79 percent increase in irregular expenditure from the previous year. Finally, the MICT SETA Annual Report for 2020-2021, provides a clear indication of the poor performance and maladministration alluded to above, with R635 million received from skills development levies, pay-outs of R121 million in mandatory grants (31 percent decrease from the previous year), with R153 million in irregular expenditure. Comparing these Annual Reports, it is blatantly apparent that despite a steady decrease in skills development levies received by MICT SETA, there is a consistent increase in MICT SETA's irregular expenditure (year on year).

According to Kraak, Jewison, Pillay, Chidi, Bhagwan and Makgolane (2013), large numbers of unemployed people have been trained, only to remain unemployed, with many accessing such programmes mainly to obtain the learner allowance. Even when access to education and training

opportunities are obtained, dropout rates at our education and training institutions and in vocational programmes remain high and throughput rates and work placements low (Kraak *et al.*, 2013*)*.

According to the World Bank Group in IFC (2011), the public sector cannot tackle the education for employment challenge on its own, private sector participation could add unique strengths, technical expertise, and the requisite financial resources. However, critical enablers need to be introduced namely, rigorous standards and independent quality assurance, sustainable financing mechanisms for private provision and greater information transparency and matchmaking between your people, employers and education providers (Dunbar, 2013). The current skills system in South Africa has spent large sums of money on learning programmes aimed at both the unemployed and the informal sector for various learnerships and short skills programmes including New Venture Creation (NVC) programmes. Such programmes have had little or no real impact in terms of improving the skills sets of those participating. Learnerships rely on complex institutional and structural arrangements, a tripartite agreement between a SETA, training provider, and employer, to provide the theoretical and workplace experience components (Naidu, 2019). Very often, business skills training is not linked either to occupational skills or to the wider assistance that small enterprises need to get established (Kraak *et al.,* 2013*)*. Moreover, a rigid and heavily bureaucratised quality assurance regime adopted by the ETQA units within SETAs has stifled the responsiveness and innovation of providers with regards to meeting real skills needs, particularly skills need on the ground within communities (Kraak *et al.,* 2013).

According to Naidu (2019), the learnership model's retention rate has fallen in recent years, as the learnership programme currently lacks the ability to retain learners. Many learners discontinue, despite the huge investments (resources, time, and energy) in the programme. There are huge monetary investments required of ICT firms involved in learnerships. The literature is divided into those that focus on the promotion of the learnership system as a means of occupational certification to address (Kruss. Wilschut, Janse van Rensburg, Visser, Haupt and Roodt, 2012). Learnerships offer learners an opportunity to gain workplace learning, which is integral in the development of learners' skills and competencies. However, the roll-out of learnerships has been an enormous task from an operational point of view, as they are very time-consuming and difficult to implement (Naidu, 2019).

There is little available research on learners' perceptions of ICT industry programs in South Africa. Research conducted on learners' perceptions in other industries indicate that the experience was a positive one, however there were numerous external negative factors associated with learnership training, impacting the overall value of the program (Akbar, Vajeth and Wissink, 2016).

2.10 TIPS Framework

The lightbulb is most often thought of as Thomas Edison's signature invention, but Edison understood that the bulb was little more than a parlour trick without the integration of electrical power generation and transmission to make it useful. So it is, with Da Vinci Institute's TIPS Framework.

2.10.1 What is TIPS Framework?

The TIPS Framework is the integration of Technology, Innovation, People and Systems in order to achieve successful outcomes. Anderson (2018) enunciates that "the TIPS Framework enables the DA Vinci Institute to cultivate managerial leaders through the core principles of business-driven action learning by offering students a personalized journey of self-discovery and co-creation." The TIPS Framework provides the creation of knowledge that is trans-disciplinary in nature, socially relevant in order to solve work-based problems and also to contribute towards professional development (Anderson, 2018).

2.10.2 TIPS Benefits?

The integration of the four domains (Technology, Innovation, People and Systems) allows organisations and its people to be agile, aligned and engaged (Anderson, 2018). Agile: Integrating the dynamics of the management of technology and the management of innovation such that the organisation develops, improves and adapts its technology needs. Aligned: Integrating the management of technology and the management of people by ensuring that the organisation empowers the appropriate human capabilities to match the technological needs of the firm. Engaged: Integrating the management of people and the management of innovation by evaluating the commitment and motivation of the people in the workplace.

2.11 Conclusion

The reviewed literature has highlighted essential concepts that are key to the study, particularly, the classification of skills in South Africa as well as the legislative framework and the associated institution that enable the implementation of learnerships. For a study of this nature, it was necessary to provide insight on the expansive South African skills development system as a mechanism utilized to address the supply and demand of skills. The theory of skills, SETAs, SSP, WSP, OFO, NQF, SAQA, and QCTO demonstrated the strategic thinking behind the value proposition of governments' skills development model (mainly, learnerships) to address skills gaps across all sectors, thereby, providing work-based learning and create a youth skills development ecosystem, that supports the creation of a broad-based cesspool of highly skilled workforce for industry (DOL, 2022; DHET, 2022; Arthur, 2021 and UNESCO, 2016).

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

Chapter three presents an overview of the theory of research methodology and the research design applied in the study. The purpose of this study is to evaluate the role of the private sector in promoting ICT skills development for youth employment in South Africa. The study seeks to determine to what extent does the role of the private sector contributes to the promotion of ICT skills development for youth employment in South Africa. In keeping with the primary objectives of the study, this chapter highlights the research methodology, including the sampling and data collection methods and in conclusion, the chapter demonstrates the data analysis methodology (Canonizando, 2021).

3.2 Theory of research

Before elaborating on the research design applied in the study, it is critical to understand the aim and purpose of conducting research as this has an impact on the type of research design and methodology to be selected. Other authors like (Bernstein, 2000; Brannen, 1992; Hammersley, 2000 and Withington, 2012), have identified a combination of various purposes of social science research, namely, exploratory, descriptive, diagnostic, explanatory, predictive, historical, correlational, participatory, action, evaluation, analytical and experimental research. The researcher has also learnt that while in some instances these concepts mentioned above have been used individually to describe a particular research purpose, in other instances, such concepts have been used in combination. For instance, Bryman (2006), and Dawadi, Shrestha and Giri (2021), have used analytical and explanatory research methods in combination to examine and explain why or how something is happening. After a careful consideration of the various research purposes, the researcher concluded that this study comprises diagnostic research of the learnerships value-chain, with a focus on the implementation of learnerships evaluation. According to Finch (1986:201); Hantrais (1999:522) and Kaplan (1964:343), “diagnostic research refers to a research case where a particular intervention or programme has been applied and the research seeks to identify the

shortcomings or usefulness of the programme. The diagnostic method serves as to reveal the emergence of the problem, to diagnose the problem, to explore solutions to the problem and, suggest the new discoveries."

In their support of the implementation evaluation concept, Ivankova, Creswell, and Plano-Clark, (2020:211), and Turner (2019:119), state that "the implementation evaluation focuses on whether an intervention (i.e., programme, therapy, policy, or strategy) has been properly implemented, and whether such an intervention was implemented as designed." Atwater, Dionne, Camobreco, Avolio, and Lau (1998:329), elaborate, in saying that "the evaluation research is gaining a reputation around the globe as it is perceived to have the potential to give answers to continuing questions such as how to make policies work better, what interventions work better, what interventions lead to success, and how success can be recognised, sustained and duplicated. Evaluation research is also perceived to answer questions about a programmes activity and offers insights into a programme's implementation and management."

3.3 Research Paradigm

A paradigm or worldview refers to the philosophical assumptions or the beliefs that guide and direct the researcher (Kaushik and Walsh, 2019). Paradigms offer different positions in terms of epistemology, ontology, and axiology, however epistemologically, pragmatism focuses on the practical understandings of real-world issues (Kelly and Cordeiro, 2020). The purpose of a mixed method approach is to combine both qualitative and quantitative research methods to gain a complete understanding of the research problem, usually not achieved using one method (Maarouf, 2019). Pragmatism is an approach that suggests that there are a variety of ways through which the world can be interpreted (Kelly and Cordeiro, 2020). For this research pragmatism is a philosophical and epistemological framework for interrogating and evaluating ideas and beliefs in terms of their practical functioning. Pragmatism holds that the value and meaning of opinions and 'facts' captured in research data are assessed through examination of their practical consequences (Kelly and Cordeiro, 2020). Pragmatists focus on the nature of experience where actions and identical experiences of two people are not possible (Kaushik and Walsh, 2019). The pragmatic approach is a participatory one in which participants are involved throughout the research (Kaushik and Walsh, 2019). Pragmatism, as a radical theory of experience considers experience as active

and ongoing and the world, selves, mind, knowledge, and social structures are continuously evolving (Carlsen and Mantere, 2007).

Pragmatism involves research designs that incorporate operational decisions based on what will work best in finding answers allowing pragmatists the ability to conduct research in innovative and dynamic ways aimed at finding solutions to problems (Kaushik and Walsh, 2019).

3.4 Research Design

A research design is a plan or blueprint which addresses questions relating to the kind of study that is to be undertaken and consists of the procedures for collecting, analysing, interpreting, and reporting the data (Ivankova *et al.*, 2020). Maarouf (2019:91-93), asserts that "the research design denotes a process aimed at facilitating the building of a sound argument. In this instance, an argument is a rational and coherent case that marshals both facts and reasons why the facts support some claim or point. Therefore, a substantive argument is one that supports its claim in such a manner that even to a hesitant and well-informed audience, given the resources available for gathering data and analysing the facts, such facts continue to support the claim."

Hammersley (2000:105), Linsi and Mugge (2019:189), and Maree and Pietersen (2020:27), explain that the significance of a research design is two-fold; first of all, the quality of the design will determine the quality of the output, and, secondly, by restraining the research to a certain grouping of particular hypothesis, structures, research questions, evidence, methods of drawing inferences from evidence and audience, the research design determines what arguments can and cannot persuasively be made, and what users can and cannot rationally be made of the research findings.

Considering the various stakeholders of this research study, a convergent parallel mixed method design was deemed appropriate as the purpose is to collect different but complementary data on the same topic (Ivankova *et al.*, 2020). This design is a one-phase design through which the researcher implements the quantitative and qualitative methods during the same timeframe and with equal weight.

The rationale of implementing a mixed method approach to this study links to those proposed by Bryman (2006), and includes credibility, context, illustration, utility, confirm and discover and

diversity of views. The overall goal of mixed methods research is to combine qualitative and quantitative research data to expand and strengthen the study's conclusions (LeTourneau University, 2022). For data collection, the study follows a concurrent-independent design, where both qualitative and quantitative data are collected concurrently and are independent of each other in terms of analysis. The analysis and presentation of results follows a convergent parallel design where qualitative and quantitative data are collected independently (Quan + Qual), and their results are brought together in the overall interpretation.

This choice of research design follows the paradigm of pragmatism, which is not committed to any philosophical stance and overcomes the epistemological differences between qualitative and quantitative paradigms to provide true knowledge (Dawadi *et al.*, 2021). Pragmatism therefore uses multiple methods; however, these methods should always be guided by the research problem. The main reason for adopting a pragmatist position is to allow the researcher to have a pluralistic stance of gathering all sorts of data to answer each of the research questions and objective (Dawadi *et al.*, 2021). According to Maarouf (2019), the paradigmatic stance ignores the qualitative-quantitative debate based on the idea that methodology is independent of epistemology. Pragmatism is considered by many researchers as the most common philosophical support for mixed methods (Maarouf, 2019), as is orientated toward solving practical problems in the real world rather than building on assumptions about the nature of knowledge.

Although the aim of this study is to cross-examine the role of the private sector in addressing some of the challenges consistent with the role of the private sector in the promotion of ICT skills development for youth employment, this cannot be achieved in isolation. The success or failure of the learnership system is dependent on the coordination and cooperation of all stakeholders and it is therefore necessary to understand the experiences of all stakeholders. This will be achieved by adopting a mixed method approach to collect qualitative data from IT companies, MICT SETA and training providers and quantitative data from learners (Bryman, 2006). The quantiative data was collected to aid the researcher in addressing the research questions with sufficient scientific detail and depth (Dawadi *et al.,* 2021). The collection of qualitative data provided an in-depth understanding of the phenomena.

3.4.1 Mixed Method Research Design

Ritchie and Lewis (2003:21), enunciate that "the qualitative research is a form of scientific inquiry that spans different disciplines, fields, and subject matter and comprises many varied approaches. It is used to understand complex social processes, to capture essential aspects of a phenomenon from the perspective of study participants, and to uncover systematic error, benefits, and motivations that underlie a successful intervention." Research can also illuminate aspects of organisational context and content delivery that influences learnerships performance and quality. Qualitative studies are often exploratory in nature and seek to generate novel insights using inductive rather than deductive approaches (Strydom and Bezuidenhout, 2015).

Strydom and Bezuidenhout (2015:213), ellaborate more, by saying that "the qualitative approach is defined as a situated activity that locates the observer in the world, where the researcher is attempting to make sense of, or interpret, phenomena regarding the meanings people bring to them in a natural setting." According to Bryman (2006:59), and Cosser (2012:61), "a qualitative approach to research provides descriptive data which is drawn from the respondents' written or spoken contribution, based on their perception or experience." Qualitative research deals with the underlying qualities of subjective experiences and the meanings associated with these experiences (Strydom and Bezuidenhout, 2015). Inductive logic is used in qualitative research analysis, which is an iterative process aimed at achieving data saturation.

To achieve the objectives of this study, qualitative data was collected from the ICT industry, training providers and the MICT SETA. Qualitative data is collected to obtain an in-depth understanding of the personal and subjective experiences and perceptions of respondents. These respondents are sampled using purposive sampling as each respondent is chosen based on their experience with learnerships and their involvement as learnership stakeholders. Data is collected using in-depth interviews to gain valuable information which will allow for the interpretation and understanding of respondent's answers. Interview questions were developed after a review of the literature and an in-depth understanding of the learnership system (Ritchie and Lewis, 2003).

Quantitative research is systematic and objective, using numerical data collected from a sample, with the aim of generalizing findings to the broader population (Maree and Pietersen, 2020).

Quantitative methodology refers to a set of strategies, techniques and assumptions used to study social processes by exploring numerical patterns (UTA Libraries, 2022 and LeTourneau University, 2022). The focus of quantitative research is on gathering numerical data and generalising the findings across groups of people to explain a phenomenon (LeTourneau University, 2022). Deductive logic is used with quantitative research and survey questions test and measure the data to determine if there is empirical evidence to support the research. Quantitative research differs significantly from the way in which qualitative data is collected, and the goal of each method differs. Whereas qualitative research aims at gaining a deeper understanding of respondent's experiences, quantitative research aims at describing situations, establishing relationships between variables, and explaining causal relationships (Mertler, 2016).

As stated above, this study approaches the research aim by incorporating and collecting data from all learnership stakeholders. Closed-ended quantitative surveys were employed to collect data from learners completing their learnerships. Data was analysed using SPSS v.23 (Statistical Package for Social Sciences) and descriptive statistics and correlation analysis were conducted.

3.4.2 Research Methodology

McGrath *et al.* (2004:85-110), articulate that "research methodology is a subject of the research process and the kind of tools and procedure to be used in data collection. This includes the sampling and data collection methods." The following section highlights the sampling techniques applied, as well as the data collection methods applied. Posavac and Carey (2017:113), allude that "qualitative research is a form of scientific inquiry that spans different disciplines, fields, and subject matter and comprises many varied approaches. It is used to understand complex social processes, to capture essential aspects of a phenomenon from the perspective of study respondents, and to uncover systematic error, benefits, and motivations that underlie a successful intervention. research can also illuminate aspects of organizational context and content delivery that influences learnerships performance and quality." Qualitative studies are often exploratory in nature and seek to generate novel insights using inductive rather than deductive approaches.

Ritchie and Lewis (2003:21), and Linsi and Mugge (2019:189), define qualitative approach as "a situated activity that locates the observer in the world, where the researcher is attempting to

make sense of, or interpret, phenomena regarding the meanings people bring to them in a natural setting." According to Posavac and Carey, (2017:113), "a qualitative approach to research provides descriptive data which is drawn from the respondents' written or spoken contribution, based on their perception or experience." Qualitative research deals with the underlying qualities of subjective experiences and the meanings associated with these experiences (Strydom and Bezuidenhout, 2015). Inductive logic is used in qualitative research analysis, which is an iterative process aimed at achieving data saturation.

As alluded under previously in (subsection 3.3.1, paragraph 3), in keeping with the objectives of the study, qualitative data will be collected from the ICT industry, training providers and the MICT SETA. Qualitative research methods were selected for these stakeholder respondents to allow for a better understanding of the experiences of these stakeholders as qualitative research is uniquely positioned to provide researchers with process-based, narrated, storied, data that is more closely related to the human experience (Stahl and King, 2020).

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Qualitative data was collected to obtain an in-depth understanding of the personal and subjective experiences and perceptions of respondents. These respondents were sampled using purposive sampling as each respondent was chosen based on their experience with learnerships from the various stakeholders involved with learnerships. Data was collected using semi-structured interviews to enable the researcher to thoroughly examine the core elements of the study. A well-designed semi-structured interview instrument was used to ensure efficient data capturing and allow flexibility to participants to bring their own personality and perspective to the discussion (Barret and Twycross, 2018). Qualitative research requires data which is holistic, rich, and nuanced, allowing themes and findings to emerge through careful analysis (Barret and Twycross, 2018). Interview questions were developed after a review of the literature and an in-depth understanding of the learnership system.

Quantitative research is formal, objective, rigorous, deductive approach, and systematic strategies for generating and refining knowledge to problem solving (Mohajan, 2020). The purpose of quantitative research is to generate knowledge and create understanding about the social world (Burrell and Gross, 2022). The goals of quantitative research are to test causal relationships

between variables, make predictions, and generalize results to wider populations (McLeod, 2019). Data was collected from learners upon completion of the ICT industry learnership programme by means of self-administered closed ended surveys.

3.4.3 Population and Sampling

A population is defined as an entire group of people or entities from whom information is required (Pascoe, 2016). Depending on the nature of the research being conducted, the size of the population varies, and it is usually impossible to include the entire population in the study. The population/s for this study were defined in 2017 and included ICT Industry (mainly, MIA Telecoms, Liquid Telecoms, MicroMega Holdings, Sebata IT Solutions and Labournet), in Gauteng. MICT SETA (senior management team), training providers and learners completing their learnerships in 2018, from the Gauteng Province. Although learners completed their learnerships at various training providers throughout South Africa, the focus of this study was on those that are based in Gauteng, Johannesburg, from Mguka TVET College, Sebata Municipal Solutions (Skills Development Centre), and eKasi IT Solutions. As the standard requirement, learners from these training institutions (Mguka TVET College, Sebata Municipal Solutions, and eKasi IT Solutions) are required to complete an end of learnership programme closed-ended-survey, available on the training providers premises and accessed using training provider computers, towards the end of each learning programme. Therefore, total population sampling was used for quantitative research collection from all learners in 2018. The population for the qualitative research portion of the study consisted of training provides, ICT industry and MICT SETA. The population parameters for training providers required training providers to be based in Gauteng, were training learners for ICT learnerships during 2018, had operated as learnership training providers for a minimum period of 10 years and must be registered as a learnership training provider with MICT SETA. The population of ICT industry consisted of those operating within Gauteng, have been involved in the learnership system for a minimum period of five years, who are registered as Skills Development Levy (SDL) payers at MICT SETA and have implemented learnerships with the MICT SETA with a minimum of 25 learners (unemployed). Finally, the population characteristics for MICT SETA included MICT SETA senior management employees involved with ICT learnerships who were experienced with the implementation of learnerships at the executive level of the MICT SETA.

Sampling is where a subset of the population of interest is selected to take part in a data collection (Turner, 2019). Sampling therefore refers to the process of selecting a subset of the population and a sample refers to the smaller number within the population that will represent the whole (Qualtrics, 2022). Pascoe (2016:44), and Turner (2019:119), define sampling as "a technique employed to select a small group with a view to determining the characteristics of a large group. Thus, if selected appropriately, the sample will display the same characteristics or properties as the large group. Essentially, a sample is used to simplify the research by studying the small group instead of the entire population." Canonizando (2021:88), maintains that "this saves time and costs, as studying the entire population could be time consuming and expensive, whereas the data required could be extracted from a sample; identify two major types of sampling, namely, probability sampling and non-probability sampling."

Probability sampling is primarily used for the purpose of quantitative data collection, where all members of the population have a known, non-zero probability of being selected (Maree and Pietersen, 2020). Probability methods are based on the principles of randomness and probability theory (Maree and Pietersen, 2020). However, for this study, the population of learners completing their learnership consisted of 150 learners based in the Gauteng Province, mainly, Soweto area, in 2018, who attended learnerships at the abovementioned three MICT SETA accredited institutions (Mguka TVET College, Sebata Municipal Solutions, and eKasi IT Solutions). All learners completed the survey upon completion of the learnership and therefore all learner surveys were used to conduct statistical analysis. Total population sampling was therefore used for the purpose of this study. Among the advantages of using total population sampling are the ability to make generalisations from the data gathered, saving time and money and effort collecting data, the ability to target niche demographics to obtain specific data points, to achieve a maximum level of variation in a given sample, looks at the weighted mean average in the data, allows to see information from various extremes of population groups and has a low margin of errors (Canonizando, 2021).

Non-probability sampling does not make use of random selection of population elements and would make it dangerous to draw important conclusions about the population (Maree and Pietersen, 2020). For this study, non-probability sampling by means of purposive sampling was used to

sample MICT SETA, ICT industry and training provider participants. Purpose sampling was chosen as participants are sampled based on their experience with the learnership system. The researcher only targeted respondents from training providers, ICT industry and MICT SETA, based on the parameters set in the population. The qualitative sample consisted of three training providers (Mguka TVET College, Sebata Municipal Solutions, and eKasi IT Solutions), staff from five ICT industry (including two learnership coordinators and three HR managers), and three executive managers and two project coordinators from MICT SETA. These samples were selected because they were able to provide specific knowledge, and experience on learnerships which support an in-depth understanding of learnerships and assist with the attainment of the research objectives.

3.4.4 Data collection methods

Bernstein (2000:235), Hammersley (2000:105), Linsi and Mugge (2019:189), and Maree and Pietersen (2020:27), suggest that "there are fifteen techniques of qualitative data collection and analysis, namely, participant's observation, interviewing, ethnographic interviewing, elite interviewing, focus group interviewing, document review, narratives, life history, historical analysis, films, questionnaire, proxemics, kinesics, psychological techniques and unobstructive measures." The techniques mentioned above are broadly grouped into three categories, namely, observation, interviewing and documentary analysis. In this study, secondary data was collected through document review (discussed in Chapter 2), and primary data was collected through interviews and closed-ended surveys. The use of secondary data, helped to reduce the financial costs associated with research, because this data was easily accessed from the previous learnership projects, research studies conducted by the MICT SETA and DHET. Secondary data is beneficial to the researcher because it reduces the costs associated with the study. Primary data provides the researcher with necessary updated and relevant information that support the primary objectives of the study which is to determine factors that have hindered and/ or supported the private sector in its contribution of promoting skills development for youth employment in South Africa.

3.4.5 Secondary data

The secondary data was mainly developed from books, various journals, conferences, internet articles, press conferences, articles, publications, white papers by the Ministry of Higher Education, MICT SETA, Department of Employment and Labour (DOL, 2020), private sector – IT sub-sector,

government, and other related publications. The information was organised and presented in Chapter two as part of the literature review section. The contextual background of the study was also informed by the secondary data. Topics, sub-topics and definition of terminologies such as legislative framework, SETAs, SSP, WSP, OFO, NQF, SAQA, QCTO, skills development system, ICT (IT sub-sector), learnership system, were the contexual presentation of the secondary data in the study of the role of the private sector in the promotion of skills development for youth employment in South Africa.

The secondary data provided an in-depth understanding of the overall past experiences, and perspectives of learners, constitution of the MICT SETA, training providers and companies in the context of historic circumstances and settings. It presented a clear picture of some of the predicaments encountered by the different groups (learners, MICT SETA officials, training providers and IT companies) in the implementation of learnership programmes. It elucidated the national government's strategies in dealing with societal challenges – inequality, socio-economic transformation, capacity building, youth empowerment, and infrastructure development (Linsi and Mugge, 2019 and Maree and Pietersen, 2020).

3.4.6 Primary data

Primary data was collected by means of semi-structured qualitative interviews and self-administered closed-ended quantitative surveys. Interviews are commonly used qualitative methods of collecting data, and for this research, interviews were used to collect data from IT companies, MICT SETA officials and training providers. The face-to-face, semi-structured interviews were used to obtain detailed data based on experiences of respondents. These semi-structured interviews were recorded and later transcribed by the researcher. Semi-structured interview questions were adapted to elicit the experiences and challenges of each sample (Posel, Casale, and Vermaak, 2014).

Quantitative closed-ended surveys were completed by all learners at the end of their learnership and required learners to answer a series of demographic questions as well as Likert scale questions. The survey was developed after discussions with training providers and a review of previous research studies. Learnership respondents were asked a series of questions related to their

learnership experience with questions rated on a five-point Likert scale. These questions were divided into satisfaction questions where 1=extremely satisfied and 5=not at all satisfied, and questions related to their confidence in their abilities because of completing the learnership where 1=extremely confident and 5=not at all confident. Reliability of scale was conducted on the Likert Scale questions and yielded a Cronbach Alpha of .716 which is considered acceptable.

Data collected from learners was coded and saved in an Excel file, which was imported into SPSS v23. for further statistical analyses. Demographics were analysed using mean and central tendency and 5-point Likert scale questions were analysed using a correlation analysis. Participants were, therefore, able to enlighten the researcher about actual experiences, and the interviews produced a comprehensive and detailed data which addressed the objectives of the study, namely:

Objective One – Relevance and Accessibility of learnerships: Marketing communication of learnerships, including, advertisement of new programmes. Selection and recruitment process of the learners based on the minimum requirements of the qualification, work experience, previous training in the light of scarce and critical skills, addressed by the programme.

Objective Two – Learner Support: To evaluate the support currently offered to learners throughout the different phase of the programme (formally facilitated learning and experiential learning), including, mentoring, and coaching (offered by training provider, employer and MICT SETA).

Objective Three – Effectiveness: To establish the availability of institutional and other ETQA requirements to ensure compliance and that the learning programme objectives are met (quality of content delivery).

Objective Four – Impact of the programme: To determine if the learnership programme is achieving its intended objectives of providing opportunities to learners to acquire both formally-facilitated learning (relevant new skills) and experiential learning for the achievement the qualification (practical application of new skills and relevant work-experience).

Objective Five – Linkage to the workplace: To determine if the learnership programme stakeholders have properly planned the entire value-chain of the programme for learners to obtain the required work-experience at the end of the intervention. To evaluate the success of learnership programme stakeholder partnership, through post-learnership programme learner placement (exit opportunities).

3.5 Data Analysis

The qualitative analysis undertaken for this study was content analysis. Content analysis focuses on the voice recordings made of interviews conducted with MICT SETA, training providers and IT companies. The purpose of content analysis is to investigate the words that are spoken with less emphasis on the visual cues. Content analysis consists of both explicit and implicit content (Crosley, 2021). Explicit data is transparent and easy to identify, while implicit data is that which requires some form of interpretation and is often subjective in nature (Crosley, 2021). There are two types of content analysis, namely conceptual and relational. Conceptual content analysis focuses on the number of times a concept occurs in a set of data and is generally focused on explicit data, while relational content analysis assesses the relationships between different concepts, as well as how they are connected and the context in which they appear (Crosley, 2021). This study makes use of relational content analysis and uses the following steps:

1. Identify the question – this focuses the study and indicates where the research is headed.
2. Select a sample of analysis – the sample for this study consists of five IT company respondents, three training company respondents and five MICT SEATA respondents.
3. Determine the type of analysis – this study focuses on relational analysis and will therefore focus the analysis of the type/s of relationships. For this study proximity analysis is used because it is concerned with the co-occurrence of explicit concepts in the text. Affect extraction analyses the emotional considerations of the speaker and receivers.
4. Reduce the text to categories and code for words or patterns – in the simplest form the researcher can code for mere existence, however this study will analyse the text and phrases spoken and analyse for ambiguity or those let open for change.
5. Explore the relationships between concepts – once coded the text can be analysed for relationships among the concepts.

Once relationships between concepts are identified a representation of the relationships will be included and discussed in terms of their relevance for the research. The reason for selecting content analysis over thematic analysis is due to the fact that qualitative interview questions, although open to elaborating on each respondents' individual experiences, the sample consists of organisations and government department. The opportunity to gain deeper insight into each respondent and their

lived experienced was deemed unlikely as respondents would inevitably respond based on processes and procedures for each of the organisations (McDavid and Hawthorn, 2016).

Quantitative data was collected using closed-ended surveys which are completed by all learners upon completion of their learnership (via computer). The data was prepared, cleaned, coded in a saved Excel file, which was then imported to SPSS v23 for further analyses. First a demographic profile of learner respondents will be presented, then Spearman Correlation Analysis was conducted to determine relationships between variables. ANOVA and t-tests were conducted to compare the mean score of different groups of participants.

3.5.1 Trustworthiness, Reliability and Validity

With qualitative research, reality is socially constructed, and the quantitative concept of validity is not a goal of qualitative research (Stahl and King, 2020). Analysing qualitative research strives for the goal of trustworthiness, which means that when readers interpret the written work, they will have a sense of confidence in what the researcher has reported (Stahl and King, 2020). Lincoln, Guba, and Pilotta (1985), rely on four general criteria in their approach to trustworthiness, namely, credibility, transferability, dependability, and confirmability.

1. **Credibility**: addresses the fit between respondents' views and the researcher's representation of them (Nowell, Norris, White and Moules, 2017). Credibility was operationalised through the process of member checking to test the findings and interpretations with the participants.
2. **Transferability:** refers to the generalizability of qualitative research which focuses on case-to-case transfer (Nowell *et al.,* 2017). The research provided descriptions, which allows for the transferability of findings.
3. **Dependability:** is achieved by researchers who ensure that the process is logical, traceable and founded on grounded theory (Nowell *et al.,* 2017). The research process has been described in detail and supported by scientific data from other researchers in the field.
4. **Confirmability:** is concerned with establishing that the researcher's interpretations and findings are clearly derived from the data (Nowell *et al.,* 2017). This is established once credibility, transferability and dependability are all achieved.

The term validity refers to the extent to which a measure, measures what it is intended to measure and whether the inferences made are defensible and supported by sound evidence. More specifically, it answers the question - how well the instrument measure does, what it purports to measure (Bernstein, 2000 and Bryman, 2006). The validity question is always answered in each context, under certain circumstances and for a particular group. Internal validity is concerned with the question of whether the findings faithfully represent the object or subject which has been studied, while external validity refers to the extent to which the results are generalizable or transferable to other settings (Nilsen and Brannen, 2002). In ensuring validity four major strategies (employed both by quantitative and qualitative approaches) were followed:

1. **Content validation:** This refers to the question of whether the full content of a conceptual description is represented in the measure. Content validity is generally established based on judgements by the researcher and external experts, as to whether the measuring instrument reflects all aspects of the model selected for answering the research questions. Validation through external judgement is given more credence than its subjective counterpart, which is face validity (Rubin and Babbie, 2007).
2. **Peer examination:** Peer examination was used to further verify results. For the peer examination the preliminary descriptive analysis was handed over to three peers, two staff members of Incubate South Africa and the research leader, to check interpretations and conclusions made by the researcher. Peer review or debriefing provides an external check of the research and its findings, like the spirit of interrater reliability in quantitative research (Creswell 2003).
3. **Detailed description:** Finally, a detailed description of the research setting, data collection and analysis process as well as its findings is provided enabling the reader to determine the transferability (external validity) and reliability of results.

The closed ended survey was measured for internal reliability using Cronbach Alpha which yielded a result of .716 (moderate reliability). The closed ended survey was pilot tested, and no changes were required. To ensure trustworthiness of qualitative research data, a well-established research design was employed, and interview questions were developed after a detailed review of the

existing literature, government documents and researcher experience within the field (Bernstein, 2000; Hammersley, 2000; Linsi and Mugge, 2019, and Maree and Pietersen, 2020).

3.6 Conclusion

Chapter 3 has shown how the research was undertaken. The key to this chapter is the understanding of the theory of research, the research design implemented in the study, and the research methodology which included the sampling and data collection methods. The chapter also provided insight into the primary data that was collected (Ivankova *et al.*, 2020).

In conclusion, this chapter provided a description of the collection procedure and the techniques used for data analysis as well as reliability and validity issues pertaining to the study. The results of the analysis process, combined with a discussion thereof, will be presented in Chapter 4 and the recommendations in Chapter 5 (Strydom and Bezuidenhout, 2015).

CHAPTER 4

FINDINGS

4.1 Introduction

The previous chapter focused on the research methodology and the measuring instruments used for data collection as well as a discussion on the reliability and the strategies employed for data analysis. In this chapter the results of the statistical analysis for each stakeholder group will be reported and discussed based on the set research objectives. The results are presented in terms of quantitative as well as qualitative findings. For reasons of consistency and ease of comparison, findings across all groups will be provided in percentages, despite the small size of the samples of the three training providers (fifteen facilitators), five private sector companies – learnership coordinators/ HR managers. The responses of key informants from the industry-related organisations were deliberately summarised within one group to preserve the anonymity of respondents.

4.2 Research Objectives Revisited

The subsequent sections outline the results of the surveyed groups. After a short overview of the respondent characteristics, the actual findings will be discussed. The result discussion will be governed by the research objectives that are revisited here for ease of reference.

a. **Learnership satisfaction:** Investigate the general satisfaction level of the different stakeholders with the system.

b. **Appropriateness of the learnership system:** Determine the general appropriateness of the system from the providers' perspective.

c. **Provider learnership motivation**: Investigate the general motivation of the workplace and institutional providers for getting or staying involved in the learnership system.

d. **Provider learnership competence:** Investigate the learnership competence level of the providers (i.e., workplace/institutional providers).

e. **Learnership processes:** Identify the primary process needs of the stakeholders.

f. **Learnership outcome:** Determine the effectiveness of the system with regards to the development of applied competence and future employability or continuing education opportunities of the learners.

g. **Differences in company groups:** To determine if differences exist with regards to learnership satisfaction and appropriateness, provider learnership motivation and competence as well as learnership outcome, based on learnership involvement and company size.

h. **Differences in learner groups:** To determine if differences exist with regards to learnership outcome based upon employment prior to the learnership (for example, sectotions:18.1(employed) /18.2 (unemployed) learners), completion of the learnership, involvement of an employer in the learnership as well as the NQF level of the learnership.

i. **Obstacles observed:** Identify the major obstacles observed.

j. **Proposals for interventions:** Make proposals regarding possible interventions in the system.

Due to time constraints given the amount of data obtained from the closed-ended surveys from the ICT learners; the appropriateness of the system, the provider learnership motivation and competence was only analysed from the providers' perspective. Accordingly, the learner findings will not cover research objectives 2-4.

4.3 Primary Quantitative Research Findings

Primary research findings are divided into quantitative data and qualitative data. Table 4.1 below provides the demographic characteristics of the Learnership participants.

Table 4.1: Demographic characteristics of learnership participants

		Count	Percent
Age	18-24 years	50	33%
	25-34 years	90	60%
	35 years and older	10	7%
Gender	Male	53	35%
	Female	97	65%
Disability	Yes	5	3%
	No	145	97%

Learnership participants for this research study were female (65%), aged between 25-34 years (60%) and did not have a disability (97%). All learnership participants were black African (DTIC, 2020). These findings were aligned with the requirements of learnerships in terms of representation of black females within the age range of 25-34, however learners with disabilities were low. These findings are however in direct contrast with Smith, Jennings, and Solanki (2005), study on the perspectives of learnerships, which collected data from 25 SETAs, 100 learners and 37 employers. At the time of the Smith *et al.* (2005) study, less than half the learners were female (45%) and the largest proportion (46%) were white. This indicates that the progress of learnerships is aligned with the strategic objectives of the National Development Plan (NDP), New Growth Path (NGP), Broad-Based Black Economic Empowerment (B-BBEE), National Skills Development Plan (DOL, 2021; DHET , 2019 and DTIC, 2020). The age of learners does however align with Smith *et al. (*2005) where 96% were 35 years of age and under, which reflects the target set by the Department Higher Education and Training (DHET, 2019). Mummenthey (2008), presented a similar demographic profile on the study of learnership programmes in the Construction Industry, Western Cape Province. In another study by De Louw (2009) in Cape Peninsula similar findings are recorded, however, 6% of learners were people with disabilities (PWDs). DOL regards learnership programmes as an opportunity to escalate skills of people with disabilities (PWDs) and has aims to use the learnership programmes as a platform for developing the skills of PWDs (De Jager *et al.*, 2006). However, the mandatory percentage of learners with disabilities taking part in learnerships is 4% (De Jager *et al.*, 2006 and MICT SETA, 2018).

Learnership participants were asked a series of questions related to their learnership experience with questions rated on a five-point Likert scale. For satisfaction questions 1=extremely satisfied and 5=not at all satisfied, whereas confidence in their abilities were rated 1=extremely confident and 5=not at all confident. Reliability of scale was conducted on the Likert Scale questions and yielded a Cronbach Alpha of .716 which is considered acceptable. Table 4.2 below provides the results of the Likert scale questions.

Table 4.2: Likert scale question related to satisfaction and confidence of learnership participants

	Extremely satisfied	Very satisfied	Satisfied	Not very Satisfied	Not at all satisfied
How satisfied are you with the recruitment process?	46%	**53%**	0%	0%	1%
How satisfied are you with the subject matter expertise and professionalism of your instructor?	**72%**	27%	0%	0%	1%
How satisfied are you with the support provided by your instructor?	**61%**	24%	14%	0%	1%
How satisfied are you with the support provided by MICT SETA programme coordinator?	0%	14%	23%	**37%**	27%
How satisfied are you with the training facilities and equipment provided for the programme?	**73%.**	12%	14%	0%	1%
Did this learnership meet your career and personal development goals?	**61%**	38%	1%	0%	0%
	Extremely confident	Very confident	Confident	Not very confident	Not at all confident
How well do you feel prepared to apply your newly acquired technical competence (expertise in occupation)?	**73%**	25%	0%	1%	0%
How well do you feel prepared to apply your newly acquired Methodological competence (ability to use new skills for problem-solving)?	37%	**49%**	13%	1%	0%
In your opinion did this learnership improve your prospects in securing a job in the MICT industry?	**72%**	14%	14%	0%	0%

Questions related to learnership participants satisfaction yielded high satisfaction scores for the recruitment process (53% very satisfied), subject matter (72% extremely satisfied), support provided by instructor (61% extremely satisfied), the training facilities and equipment (73% extremely satisfied) and the learnership meeting career and personal goals (61% extremely satisfied). These findings align with those of Naidu (2019), which stated that learners undertaking a learnership in the IT industry were satisfied with training providers knowledge, positive attitude, facilitators use of various approaches to enhance learning and the theoretical content of the program. Similarly, the research of (Smith *et al.*, 2005) and (Mummenthey, 2008), found that learners were very satisfied (36%) and satisfied (58%) with the level of information provided on learnerships. The study further found that 95% of learners felt that trainers were knowledgeable and approachable, 92% felt that the materials were well written and applicable to future workplace situations. The demographic profile of learners in a study by Noge (2010) on the perceptions of Learners on learnership programmes, align with the demographics for this study. A report compiled by F, P and M SETA on the impact assessment of learnerships in 2014 similarly reported a demographic profile of mostly black female South Africans under the age of 25, however only 0.52% of learners reported having a disability (F, P and M SETA, 2014).

The only question which resulted in a low satisfaction score was with the support provided by the MICT SETA programme coordinator where results were not very satisfied (37%) and not at all satisfied (27%). This finding is like Naidu's (2019), findings that SETAs communication was inefficient and slow and that grant disbursement often behind schedule, leading learners to question the legitimacy of the programmes. According to Noge (2010), learners believed that SETAs and the local government initiated learnerships and as such are morally or legally obliged to employ them once they finish the learnership. For these learners, the learnership was not about assisting them with access to the job market but rather, an employment placement guarantee. Noge (2010:51), argues that "while learnerships promote employment, that is, access to jobs-market, however, that is not a guarantee of jobs available and therefore, placement. This misconception from the learner perspective creates a heavy burden on learnerships to solve the problem of poverty and unemployment." According to Smith *et al.* (2005) the role of SETAs is complex and has had mixed success, while some SETAs have been innovative in their leadership other SETAs have failed woefully and are not able to either administer the learnerships nor monitor the performance of learners during the skills development phase. Similarly, Mbonambi (2009), found that 83% of learners were dissatisfied with the necessary support to promote learnership programmes by SETAs. According to Aigbavhoa and Thwala (2014), all the reasons for dissatisfaction with learnerships by learners and employers are the responsibility of the SETAs.

Learnership participants indicated that they were extremely confident (73%) in their technical competence, very confident (49%) in their methodological competence and extremely confident (72%) in their future employment prospects in the MICT industry after having completed the learnership. These findings were like those of Naidu (2019), where learners indicated that they gained valuable experience and hoped that in gaining a qualification they were able to find employment quicker than those who did not have a qualification. Similarly, in Noge's study (2010), learners believed that the acquisition of a qualification grounded in experiential learning gave them a greater chance of finding employment. Smith *et al.* (2005) reported that 69% of learners were employed on a full-time basis and 9% on a part-time bias at the time of data collection.

Spearman correlations between satisfaction questions, confidence questions and demographics were conducted to determine the strength and direction between variables. Table 4.3 below provides the statistically significant correlations between variables.

Table 4.3: Spearman Correlations between Likert scale variables and demographics

		How satisfied are you with the recruitment process?	How well do you feel prepared to apply your newly acquired Technical Competence (expertise in the occupation)?	How well do you feel prepared to apply your newly acquired Methodological Competence (ability to use new skills for problem-solving)?	How satisfied are you with the subject matter expertise and; professionalism of your instructor?	How satisfied are you with the support provided by your instructor?	How satisfied are you with the support provided by MICT SETA Programme Coordinator	How satisfied are you with the Training Facilities and Equipment provided for the programme?	Did this learnership meet your career and personal development goals	In your opinion, did this learnership help improve your future prospects in securing a job in the MICT Industry?
Disability	Correlation Coefficient	**-.245****	**-.264****	**-.188***	**-.256****	-0,121	**-.204***	**-.164***	**-.209***	**-.212****
	Sig. (2-tailed)	**0,003**	**0,001**	**0,022**	**0,002**	0,140	**0,012**	**0,044**	**0,010**	**0,009**
How satisfied are you with the recruitment process?	Correlation Coefficient	1,000	0,022	0,094	0,048	**.360****	**.303****	**.554****	**.306****	-0,040
	Sig. (2-tailed)		0,792	0,254	0,559	**0,000**	**0,000**	**0,000**	**0,000**	0,625
How well do you feel prepared to apply your newly acquired Technical Competence (expertise in the occupation)?	Correlation Coefficient		1,000	**.647****	**.415****	**-.367****	0,138	**.214****	**.191***	**.487****
	Sig. (2-tailed)			**0,000**	**0,000**	**0,000**	0,091	**0,009**	**0,019**	**0,000**
How well do you feel prepared to apply your newly acquired Methodological Competence (ability to use new skills for problem-solving)?	Correlation Coefficient			1,000	**.650****	0,078	**-.205***	**.294****	0,027	**.688****
	Sig. (2-tailed)				**0,000**	0,343	**0,012**	**0,000**	0,743	**0,000**
How satisfied are you with the subject matter expertise and professionalism of your instructor?	Correlation Coefficient				1,000	0,084	**.176***	**-.272****	**-.334****	**.987****
	Sig. (2-tailed)					0,308	**0,032**	**0,001**	**0,000**	**0,000**
How satisfied are you with the support provided by your instructor?	Correlation Coefficient					1,000	**-.164***	**.486****	**.163***	0,013
	Sig. (2-tailed)						**0,045**	**0,000**	**0,047**	0,871
How satisfied are you with the support provided by MICT SETA Programme Coordinator	Correlation Coefficient						1,000	**-.214****	-0,040	0,083

	Sig. (2-tailed)							**0,009**	0,629	0,311
How satisfied are you with the Training Facilities and Equipment provided for the programme?	Correlation Coefficient							1,000	**.737****	**-.279****
	Sig. (2-tailed)								0,000	0,001
Did this learnership meet your career and personal development goals	Correlation Coefficient								1,000	**-.349****
	Sig. (2-tailed)									0,000

Table 4.3 provides all the statistically significant positive and negative correlations between variables. Interestingly very weak negative correlations were found between people with disabilities (PWDs) and satisfaction variables, namely recruitment process (r= -.245, p=.003), subject experience and professionalism of instructor (r= -.256, p=.002), support provided by MICT SETA programme coordinator (r= -.204, p=.012), training facilities and equipment (r= -.164, p=.044), learnership met career and personal development goals (r= -.209, p=.010) and improved ability for employment (r= -.212, p=.012). There were weak very negative correlations between Disability and confidence variables, namely technical confidence (r= -.264, p=.001) and methodological confidence (r= -.188, p=.022). Only 3% of the learners in this study reported having a disability, which aligns with the F, P and M SETA Report (2014) with 0.54% disabled learners. A tender and request for proposal briefing session presentation was held in March 2022 by DHET and NSF for skills development programmes for persons with disabilities (PWDs) (DHET, 2022).

According to McGrath (2004:98) and Mbonambi (2009:51), "SETAs need to invest more towards the instructional design and programme development for PWD learners. Because the current model of the learnership system does not cater for PWD learners. For example, training providers and employers are not provided the essential skills required for successful coaching of PWD learners." De Jager *et al*. (2006:48-54), argue more, stating that "SETAs need to conduct a scientific study to apprehend the special needs of the PWD learners. The current service-offering creates a systemic error, which is counter-intuitive towards the achievement of NSDP objectives. In that it seeks to empower PWD (unemployed youth) population without the sheer appreciation on the uniqueness of their needs." Other researchers in the field, such as Erasmus (2002:29), Fester (2006:213), Cosser (2012:26), Maswanganyi (2014:33), Mathenjwa (2011:102), and McGrath *et al*. (2004:85-110), contribute to the discussion, asserting that "learnership programmes must be designed in a manner that appreciates the potential of PWD learners whilst considering the uniqueness of their needs compared to the general society without demeaning them." These correlations, although weak, indicate that current learnerships do not accommodate or consider PWD learners, however developing a specific disability learnerships does little to promote equality as per (Employment Equity Act) and access for all South Africans (Hattingh, 2006).

There were strong positive correlations between methodological competence and satisfaction with instructor (r= .650, $p\leq$.000), and between satisfaction with training facility and equipment and met career and personal development goals (r= .737, $p\leq$.000). A strong positive correlation was found for learners' confidence in applying their technical competence and learners' confidence in applying their methodological competence (r= .647, $p\leq$.000). There was a very strong positive correlation between satisfaction with subject matter and professionalism of instructor and confidence in future employment (r= .987, $p\leq$.000). These findings are closely linked to those of Noge (2010), who found that learners perceive learnerships as intervention strategies whose role it is to equip them with skills and practical experience that are job related, to enhance or guarantee their employability. Naidu (2019) found that the classroom experience was well received by learners who commented that the preparation of the training provider and well-equipped facilities motivated learners to do well. A well-structured methodological component, instructor experience, professionalism, and expertise results in enhanced problem-solving and decision-making skills of learners (Naidu, 2019). The findings show the importance of the training provider in the learnership process as learners value both the theoretical and practical knowledge acquired.

T-tests and ANOVA were conducted on satisfaction and confidence variables and demographics. There were no statistically significant differences for satisfaction and confidence variables between males and females. Table 4.4 below provides the t-test results between satisfaction and confidence variables and disability.

Table 4.4: T-Test for comparison of satisfaction and confidence variables by disability

Satisfaction variables	Disability (yes=5)	Disability (no=145)	F value	P value
	Mean and standard deviation	*Mean and standard deviation*		
Recruitment process	3,20 (± 1,643)	1,52 (± 0,501)	1227,30	**0,000**
Subject matter expertise and professionalism with instructor	3,00(± 1,871)	1,26(± 0,441)	139,46	**0.000**
Support provided by instructor	2,80(± 2,049)	1,53(± 0,737)	49,34	**0,000**
Support provided by MICT SETA programme coordinator	4,80(± 0,447)	3,72(± 0,996)	4,678	**0,032**
Training facilities and equipment	2,80(± 2,049)	1,41(± 0,731)	39,97	**0,000**

Met career and personal development goals	2,20(± 0,837)	1,38(± 0,487)	7,47	**0,007**
Improve future employment	2,20(± 0,837)	1,39(± 0,710)	0,104	0,747
Confidence variables	Disability (yes=5)	Disability (no=145)	F value	P value
	Mean and standard deviation	*Mean and standard deviation*		
Technical competence	2,60 (± 1,342)	1,25 (± 0,434)	51,22	**0.000**
Methodological competence	2,80(± 1,095)	1,75(± 0,672)	6,003	**0,015**

p< .001*

There were statistically significant differences between the levels of satisfaction for learners with a disability and learners without a disability in terms of the recruitment process (*m* = 3,20), subject matter expertise and professionalism with instructor (*m* = 3,00), support provided by instructor (*m* = 2,80), training facilities and equipment (*m* = 2,70) and met career and personal development goals (*m* = 2,20). As De Jager *et al.* (2006), alluded earlier, that the current learnership system is unable to address the needs of the PWD learners because (among others), training providers and employers are not equipped to effectively support the development of PWD learners. This is because, explain De Jager *et al.* (2006:48-54), "there is limited understand among the learnership programmes practitioners about the unique needs of the PWD learners."

There was also a statistically significant difference in the level of confidence scores of learners with a disability and learners without a disability in relation to technical competence (*m* = 2,60) and methodological competence (*m* = 2,80). Learners were not required to provide details on the nature of their disabilities, and it is therefore difficult to specifically address these statistically significant differences. Declaration of disability should be an enabler to government and other stakeholders for the provision of appropriate measures and resources aimed at meeting basic human rights (DSD, 2015). However, based on the evidence from previous research (F, P and M SETA, 2014 and De Louw, 2009), learners with disabilities enrolled for learnerships are extremely low, despite the mandatory 4% requirement. According to a report published by the Department of Social Development (2015), Disability Organisations (DO) including Disabled People Organisations (DPOs) together with DSD are responsible for ensuring the effective mainstreaming through technical support and sensitization of training providers, employers and even SETAs about different disabilities, with some being involved as lead implementers of learnership training

programs. There are no developed and monitored guidelines by DHET for the implementation of learnerships for learners with disabilities (DSD, 2015).

4.4 Primary Qualitative Research Findings

The following section outlines the specific characteristics of each respondent group. Apart from the sample characteristics, missing values within the respective stakeholder groups will be disclosed and discussed. Semi-structured interviews were conducted with five respondents from training providers, five respondents from private sector ICT companies – learnership coordinators/ training managers.

4.4.1 IT companies

The responding IT companies can be characterized as follows:

1. **Company size:** Three respondents in the IT company sample were from small companies (SMMEs) with less than 49 employees, and two respondents were from medium companies with 50-149 employees.
2. **MICT SETA registration and involvement in learnerships:** Three of the respondents indicated that IT company, they work for, was registered with MICT SETA, however, only two of these respondents stated that the IT company was actively involved in learnership programmes, mainly for B-BBEE scorecard purposes. This finding aligns with the currently low involvement of IT companies in learnerships, besides those targeting B-BBEE scorecards.
3. **Training rates and learner profiles**: The IT companies sponsoring unemployed learners were on average training 25 learners (ranging from a minimum of 20 learners to a maximum of 35 learners). One respondent indicated that the demographic profile of their learners was female (53%), African (80%) and Coloured (20%), aged between 18-24 (32%) and 25-34 (68%). These findings align with the demographic profile of learners provided above. Research indicates that learners undertaking learnerships are below the age of 35, which is encouraging, as it reflects that the learnerships are reaching the youth. As expected, given the high physical and psychological demand of the IT work, performance against disability targets was poor with only one respondent indicating that they had one disabled learner who was being trained.
4. **Mentors:** Three of the IT company respondents indicated that they did not have a specially assigned mentor to train learners in the company. Only one of the respondents confirmed that they had specific mentors, and the one respondent did the mentoring themselves.

5. **Business establishment:** Three of the IT company respondents indicated that their company had been established post 1998, and most respondents indicated that the IT company that they work for has been in operation for more than 5 years.
6. **Responding individuals:** The responding individuals were predominantly the executives/owners of the companies while one respondent was a staff member, and one respondent was the HR manager of the IT company.

The characteristics of the IT company sample respondents are high consistency with the general industry characteristics described previously in this research, i.e., a dominance of small, micro to medium sized businesses (i.e., SMMEs) comprising between 80% and 97% of the sector (see figures: 1.1, 1.2, 1.3) and low involvement in learnerships. Most respondent opinions reflected that the results were directly obtained from the executives or owners of the individual companies, and thus from the main decision-makers in terms of learnership involvement.

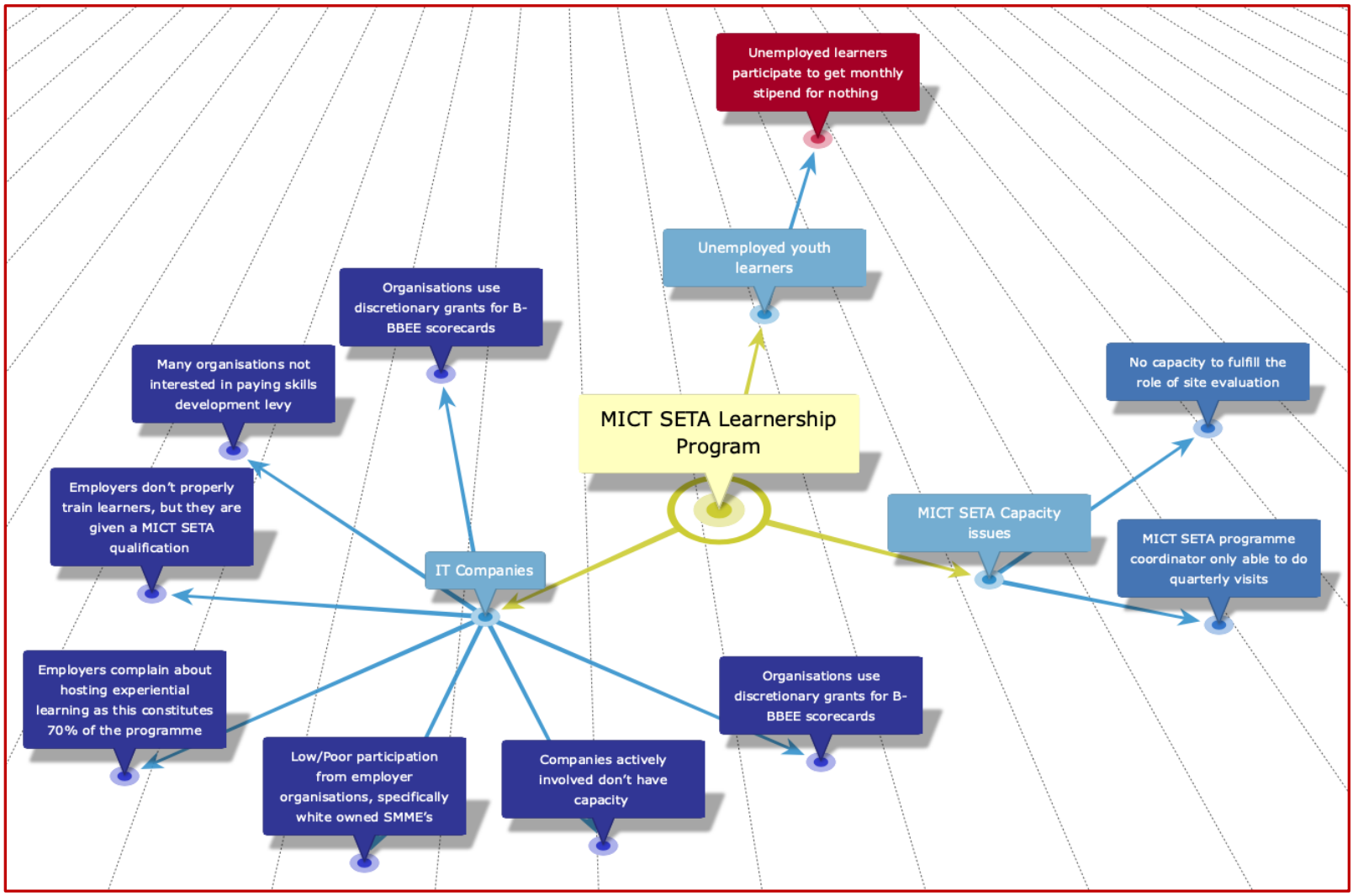
4.4.2 MICT SETA

Interviews were conducted on a sample of five MICT SETA employees on 27 September 2019. These interviews were formal in nature and were conducted at the MICT SETA, Main Boardroom, Block 2, Level 3 West, Gallagher Convention Centre, Gallagher Estate, 19 Richards Drive, Halfway House, Midrand, with much appreciation to the MICT SETA colleagues, this was a very detailed engagement, and which provided insight on the successes, frustrations and failures of the SETA. However, due to the constraints of the research, answers and experiences provided by MICT SETA management team are summarised. MICT SETA sample respondents were asked a variety of questions related to their experience and perceptions with learnership programmes, challenges experienced in the implementation of unemployed learnerships as well as potential suggestions and recommendations for the improvement of the success rate of unemployed learnerships.

These recorded interviews were transcribed to familiarize the research with the data. After transcription the process of coding was used to identify co-occurrence of explicit concepts. Qualitative data is an iterative process and after each coding analysis, the researcher reverted to the literature and governmental documents to align the data before returning to further analyse

transcripts. After identifying initial codes, the researcher reviewed the data for underlying codes to extract meaning and relationships. Finally, relationships between concepts were identified and are presented in Table 4.5 below.

Table 4.5: Relational proximity content analysis for MICT SETA sample



As seen in Table 4.5 above, the relational proximity concepts of the MICT SETA content analyses indicate that the problems experienced by MICT SETA are in direct relation to IT companies, and although not specifically mentions, the bodies governing the SETAs. Challenges for MICT SETA relate to capacity challenges, which results in lack of capacity to fulfil the role of workplace

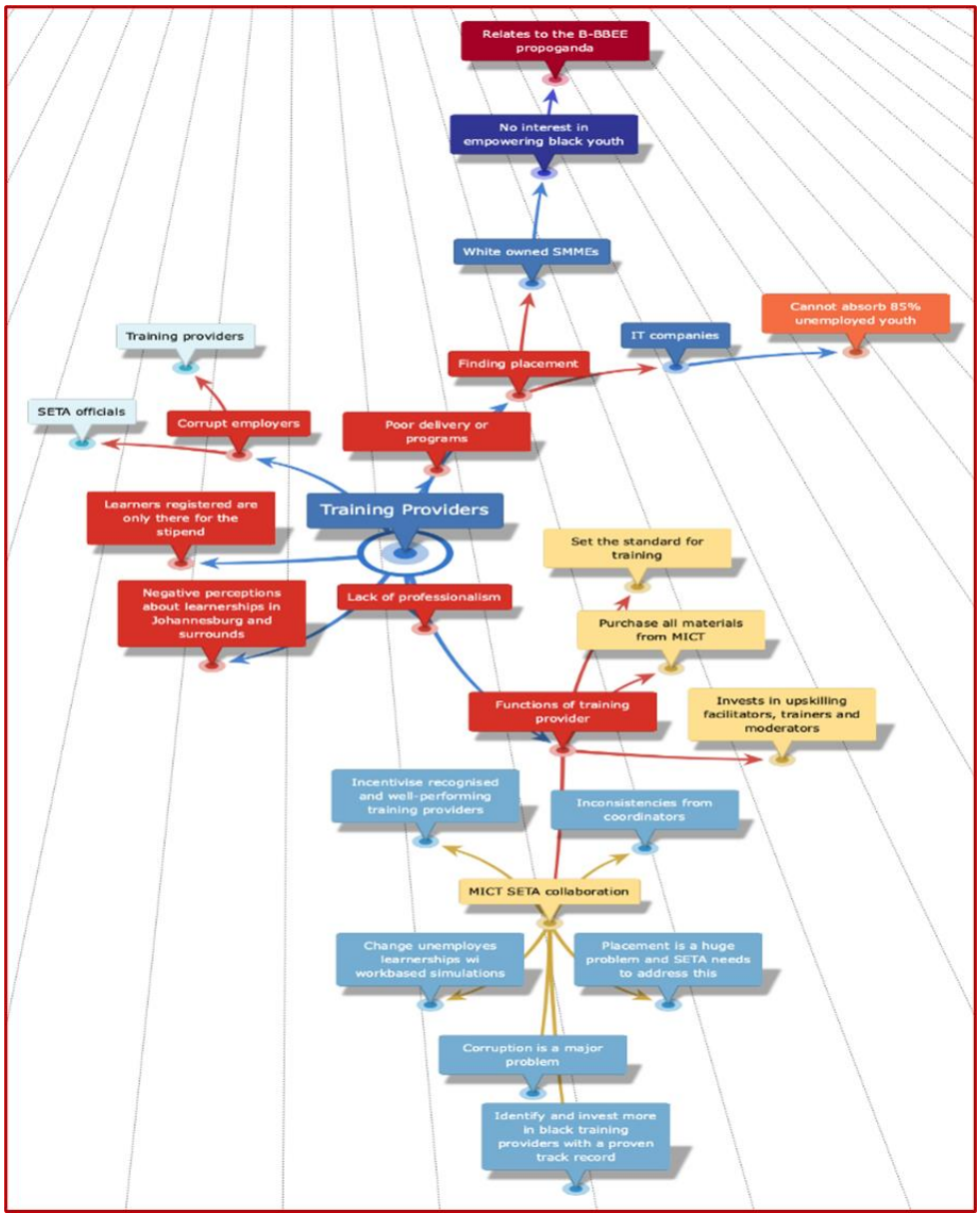
evaluation as the MICT SETA programme coordinators are only able to conduct quarterly visits. The concern however is that without MICT SETA programme coordinator visits, IT companies do not properly train learners who then receive MICT SETA qualifications. The issue raised here is whether IT companies have the requisite skills requirements to support learners as learners during the workplace-learning (experiential learning) phase of the learnership in order to achieve the assessment requirements of the qualification. It was mentioned that IT companies are using the discretionary grants for B-BBEE scorecards training target, which do not necessarily correlate with the business and employee development needs, consequently, this is one of the factors contributing to skills mismatch. IT companies that are actively taking part in the learnership programmes do not have the capacity to employ learners, this is however the responsibility of MICT SETA and failure in the current learnership system landscape, as a result, there's poor participation from IT companies.

4.4.3 Training Providers

Interviews were conducted on a sample of fourteen facilitators and one moderator from Mguka TVET College, Sebata Municipal Solutions, and eKasi IT Solutions, all based in Johannesburg. The interview questions were the same as those asked to the MICT SETA sample employees on 27 September 2019. As with the MICT SETA interviews, answers and experiences provided by sample training providers. It is for this reason that relational content analysis was used to analyse interview data by means of proximity analysis. Training provider sample respondents were asked a variety of questions related to their experience and perceptions with learnership programmes, challenges experienced in the implementation of unemployed learnerships as well as potential suggestions and recommendations for the improvement of the success rate of unemployed learnerships.

These recorded interviews were transcribed to familiarize the research with the data. After transcription the process of coding was used to identify co-occurrence of explicit concepts. Qualitative data is an iterative process and after each coding analysis, the researcher reverted to the literature and governmental documents to align the data before returning to further analyse transcripts. After identifying initial codes, the researcher reviewed the data for underlying codes to extract meaning and relationships. Finally, relationships between concepts were identified and are presented in Table 4.6 below.

Table 4.6: Relationship proximity content analysis for Training Providers



As seen in Table 4.6 above, the relational proximity concepts of training providers content analyses indicate that training providers in general have a bad reputation due to corrupt employees (both the training providers and MICT SETA officials), lack of resources, poor delivery of programmes and lack of professionalism, all of which contribute to the negative reputation of training providers in general. Problems with findings placements directly links to the findings of MICT SETA sample responses where white owned SMMEs are not interested in contributing, which is a result of

misinterpretation of the B-BBEE Act and no interest in promoting the empowerment of the unemployed black youth. Finding placement in other IT companies again links back to the findings of the MICT SETA sample in that IT companies cannot absorb 85% unemployed youth. In terms of the functions of the training providers the sample indicated that, the training material for the IT courses is quite expensive, as a result, training providers require resource management skills and financial control systems, and upskilling of facilitators, assessors and moderators. Another function of the training provider is to collaborate with MICT SETA; however, this was difficult due to the inconsistencies from coordinators, the fact that placement is a function of MICT SETA but is not carried out and left to the training provider, the fact that corruption within SETAs is a huge concern. Suggestions made by training providers were that MICT SETA should invest in and develop black training providers, incentivise those training providers that are performing well and make provision for workplace simulation as an alternative solution in addressing the workplace challenge.

4.5 Consolidation of findings

The closed ended quantitative surveys of learners were presented, followed by the qualitative interviews from IT companies, MICT SETA and Training providers. Interestingly, learners were on average, very satisfied with their training and confident in their future abilities. The concern is that these learners are often given their MICT SETA qualifications and left to fend for themselves, without assistance from MICT SETA.

4.6 Consolidation of findings based on TIPS Framework

The TIPS Framework is the integration of Technology, Innovation, People and Systems in order to achieve successful outcomes (Anderson, 2018). Such integration was instrumental in the development process of the research findings.

4.6.1 The Impact of Technology on Findings

The integration of technology and the people (research team) made a significant impact on findings. For instance, the Spearman correlations between satisfaction questions, confidence questions and

demographics were conducted to determine the strength and direction between variables. Table 4.3 above presents all the statistically significant positive and negative correlations between variables. Interestingly very weak negative correlations were found between people with disabilities (PWDs) and satisfaction variables, namely recruitment process (r= -.245, p=.003), subject experience and professionalism of instructor (r= -.256, p=.002), support provided by MICT SETA programme coordinator (r= -.204, p=.012), training facilities and equipment (r= -.164, p=.044), learnership met career and personal development goals (r= -.209, p=.010) and improved ability for employment (r= -.212, p=.012).

T-tests and ANOVA were conducted on satisfaction and confidence variables and demographics. There were no statistically significant differences for satisfaction and confidence variables between males and females. Table 4.4 above shows the t-test results between satisfaction and confidence variables and disability. There were statistically significant differences between the levels of satisfaction for learners with a disability and learners without a disability in terms of the recruitment process (m = 3,20), subject matter expertise and professionalism with instructor (m = 3,00), support provided by instructor (m = 2,80), training facilities and equipment (m = 2,70) and met career and personal development goals (m = 2,20). As De Jager *et al.* (2006), alluded earlier, that the current learnership system is unable to address the needs of the PWD learners because (among others), training providers and employers are not equipped to effectively support the development of PWD learners. The statistically significant differences between the levels of satisfaction for learners with a disability and learners without a disability presents an emergent property in the Learnership System. Such a finding would have been impossible to be identified without the strategic alignment of technology and the researcher which was provided by the TIPS Framework.

4.7 Conclusion

The context of the environment in which the study was undertaken, as well as the skills requirements to undertake its activities, have been demonstrated in this chapter. Evidently, the findings of the study highlight several challenges regarding the management and coordination of learnership programmes. These have, unfortunately impacted negatively on the success of the

programme. The findings further show that the programmes outputs and outcomes have not been achieved because of the challenges facing the implementation. The following chapter (chapter 5) outlines several recommendations for addressing the challenges facing the implementation of the learnership programme within the MICT SETA.

CHAPTER 5

DISCUSSION OF FINDINGS

5.1 Introduction

Chapter 4 discussed the research results obtained from the various stakeholders and presented a summarised version of the different perspectives. South Africa's challenges with regards to the skills shortage have necessitated a fresh approach in addressing skills constraints and improving opportunities for the unemployed youth. As one of government's flagship programmes to address the problem of the skills shortage and maximizing employability of the youth, the learnership system was introduced as an intervention that combines theoretical learning and work-based learning to establish a linkage between structured learning and workplace experience, with the overall goal of achieving competencies that solicit marketability and access to the jobs-market.

To this end, government has put in place several institutions such as DHET, SETAs, SAQA, QCTO, and Department of Labour to ensure that the learnership system is well governed. In addition, a supporting legislative framework, such as the Skills Development Act, National Skills Development Plan, NQF and Skills Development Levies Act, have been put in place to support government's vision of building skills through initiatives such as the Learnership Programme. Chapter 2 of the study explained the importance of the governance mechanisms, including various role players to ensure the successful implementation of the learnership system. The literature also showed how the learnership system was developed and the key steps for consideration during the conceptual design of the learnership landscape. The following section provides the conclusion of the study as per each objective of the study:

Objective One: To assess the recruitment and selection processes of the learners in determining their placements against the relevant practical experience to be acquired in Information Technology (IT) and the intended qualification to be obtained.

According to chapter 4 (*subsection 4.3, paragraph 4*), questions related to learnership participants satisfaction yielded high satisfaction scores for the recruitment process (53% very satisfied).

The study concludes that the recruitment process for IT Learnership Programmes gives attention to the selection criteria of the learners in ensuring that qualified candidates are shortlisted and enrolled. For instance, the required personal attributes and minimum required qualification are appointed. Moreover, Learnership participants for this research study were female (65%), aged between 25-34 years (60%) and did not have a disability (97%). All learnership participants were 100% black African (DTIC, 2020). These findings were aligned with the requirements of learnerships in terms of representation of black females within the age range of 25-34.

Objective Two: To establish the kind of support offered to the learners in the form of coaching and mentoring to be able to successfully complete the programme.

Overall, the study shows that 95% of learners (chapter 4: *subsection 4.3, paragraph 4*), that trainers were knowledgeable and approachable, 92% felt that the materials were well written and applicable to future workplace situations, which also, coincides with the finds from the study of (Mummenthey, 2008). As alluded in chapter 4, the study of Naidu (2019), also agrees, in stating "that learners undertaking a learnership in the IT industry were satisfied with training providers knowledge, positive attitude, facilitators use of various approaches to enhance learning and the theoretical content of the programme." Similarly, the research of Smith *et al. (*2005), and Mummenthey (2008) found that learners were very satisfied (36%) and satisfied (58%) with the level of information provided on learnerships. In this study the rating of learnership practitioners shows - subject matter (72% extremely satisfied), support provided by instructor (61% extremely satisfied), the training facilities and equipment (73% extremely satisfied) and the learnership meeting career and personal goals (61% extremely satisfied).

In this regard, the study shows that learnership practitioners, mainly facilitators, are highly experienced and well equipped as mentors and coaches. The support offered to the learners in the form of coaching and mentoring is substantial, in that, it enables effective learning.

Objective Three: To establish the availability of institutional and other requirements to ensure that Learnership Programme requirements are met.

According to (chapter 4: *subsection 4.3, paragraph 4*). The study shows a high satisfaction score from learners for the training facilities and equipment (73% extremely satisfied) and the learnership meeting career and personal goals (61% extremely satisfied). The study further found that 92% of the learners felt that the materials were well written and applicable to future workplace situations. It was positively noted that the physical requirements such as workspace, fully-fledged ICT labs, up-to-date computer software and aids for the those with disabilities were provided to enable an effective learning experience (chapter 4: *subsection 4.3, paragraph 4*).
Resource Development and Performance Management within the IT Learnership Programme, therefore, demonstrates a sound strategic direction, and has enabled learners to achieve their learning objectives and career goals.

Objective Four: To determine if the Learnership Programme is achieving its intended objective of providing opportunities for the learners to acquire both experiential learning and a formal qualification.

Acquiring experiential learning through the Learnership Programme within the IT Subsector was found to be challenging as many learners found it difficult to find a workplace placement during the experiential learning phase. According to (chapter 4: *subsection 4.4, paragraph 1*). Three of the respondents indicated that the ICT company they work for was registered with MICT SETA as a levy payer. However, only two of these respondents stated that the IT company was directly involved in learnership programmes, mainly for B-BBEE scorecard purposes. Due to high-performance demands in the ICT Industry and limited resources, most employers prefer to outsource the implementation of the unemployed youth Learnership Programmes to the training providers and other intermediaries within the sector. In such instances their involvement is only limited to monthly learner stipends payments. For example, three of the IT company respondents indicated that they did not have a qualified workplace mentor to support learners during the workplace-based learning phase. Only one of the respondents confirmed that they had specific mentors, and the one respondent was responsible for the mentoring of learners at the workplace.

Moreover, as explained in (chapter 4: *subsection 4.4.2*) the question on MICT SETA's support resulted in low satisfaction score, together with the support provided by the MICT SETA programme coordinator where results were not very satisfied (37%) and not at all satisfied (27%).

This finding aligns with the currently low involvement of IT companies in learnerships. Problems with findings placements directly links to the findings of MICT SETA sample responses where white owned SMMEs are not interested in contributing, which is as a result of misinterpretation of the B-BBEE Act and indifference in promoting the empowerment of the unemployed black youth. Finding placement in other IT companies again links back to the findings of the MICT SETA sample in that IT companies cannot absorb 85% unemployed youth.

Objective Five: To determine if the Learnership Programme has afforded the learners an opportunity to acquire skills to enable them to be employed.

Learnership participants indicated that they were extremely confident (73%) in their technical competence, very confident (49%) in their methodological competence and extremely confident (72%) in their future employment prospects in the MICT industry after having completed the learnership.

The study concludes that despite the poor participation of the IT companies in the ICT Learnership Programmes, however, through training provider innovative leadership, learners have successfully completed their qualifications and graduated. Notwithstanding the lack of commitment from the industry and MICT SETA the mismanagement of resources and nonaccountability from the MICT SETA.

5.2 Recommendations

Based on the findings of the study it is recommended that:

1. A management structure such as the Learnership Management Committee (LMC) must be put in place to develop a proper project plan, enhanced stakeholder engagement and a communication strategy for Learnership Programme Implementation.
2. The MICT SETA should establish an LMC to involve the private sector in the decision-making process of Learnership Programmes, especially, for the unemployed youth.
3. The LMC should also solicit the buy-in of private sector line managers in the implementation of the Learnership Programme.
4. The MICT SETA must appoint an independent and dedicated project manager, to manage the operations of the Learnership Programme.
5. The project manager must work under the guidance of the LMC (private sector, MICT SETA and Training Provider). Consideration should also be given to outsourcing the management and administration component of Learnerships Programmes to lessen the workload of the private sector staff members.
6. The Project Manager together with the Training Provider and Line Managers must be involved in the recruitment of the learners, from the drafting of the advert, interview process and other assessments processes; particularly where learners will be placed with them directly. Private Sector Line Manager must be encouraged to embrace the programme.
7. A tool must be developed to continuously monitor and assess the learning progress of the learners to determine if they are benefiting from the entire Learnership Learning Experience. This could be done though regular panel assessments, quarterly Learner Project Presentations to LMC. Learner performance results should be reported to the LMC forum.
8. Learnership Programmes should be biased towards addressing the skills needs of the organisation, in line with the strategic objectives of the organisation. In this regard, line function managers should be key in determining the skills shortage, hence Learnership Programmes to address such skills.
9. Private Sector Line Manager through the LMC should provide their workforce plans to use Learnership Programmes to create pipeline to address the future needs of the industry.
10. Through the LMC line manager should make a commitment to mentor learners during the workplace learning phase.

Role clarification should be established between the MICT SETA and IT companies to ensure that these roles are performed appropriately. This study makes it explicitly clear that the implementation of learnerships in the ICT Industry can only be successful through the participation of the private sector. That is, employers accept their responsibility to train and are prepared to deliver the practical aspect of the Learnership Programme, which as demonstrated by the research is indispensable for developing a cesspool of high-skilled-youthful-workforce into the industry.

5.3 Further Research

This study was conducted with primary focus on the ICT Industry (IT Subsector) therefore it would have been helpful if it had been conducted on a larger scale, including several national and provincial departments in the public service and the private sector nationwide through Business Unity South Africa (BUSA). The findings of such a study would be able to provide stakeholders, such as DHET, and DOL, with a better picture of the implementation of the Programme in the ICT Industry at large. In addition, the following could be considered as possible areas for research on the Learnerships:

1. Private Sector Designed Learnership Programme.
2. A case study on the curriculum development for a Learnership Programme

5.4 Research Study ROI

Return on Investment or ROI refers to a measure of the benefits of an investment relative to the cost of that investment (Stanwick and Loveder , 2017). Griffin (2016) expounds that “the general summary of the types of returns include, the individual, individual organisation and society.”

5.4.1 ROI for the Researcher

As a result of this study I have personally experienced a total-personal transformation. The TIPS Framework exposed me to complex and yet transformational concepts such as technology, innovation, people and systems. The engagement on self and others cultivated managerial

leadership qualities in me that I never knew existed. Through the business-driven action learning model I followed a personalised journey of self-discovery and knowledge co-creation. Owing to the trans-disciplinary nature of the TIPS Framework, I gleaned new skills on knowledge creation, problem-solving, and personal development. From the profesional development perspective, the study deepened my understanding of the South African Learnership System - stakeholders, policies, functions, impact, challenges, and opportunities.

5.4.2 ROI for the Organisation

As a result of the study, my organisation (Mguka TVET College), is currently reviewing its strategies in the management of Technology, Innovation, People and Systems. The strategic integration in four domains presented by the TIPS Framework, has helped improve the leadership capacity in our organisation. Consequently, our organisation has experienced reduced staff turnover in the past four-years. The culture of elevated staff-engagement, lifelong learning and social learning has been established. This new organisational culture has led to cost reduction, improved learner-experience and provided job satisfaction to the employee.

5.4.3 ROI for Society

The findings of the study contribute to the body of knowledge on the role of the private sector in the promotion of ICT skills development for youth employment in South Africa. The findings effectively highlighted the challenges encountered by the Learnership System Stakeholders (mainly, ICT Employers and MICT SETA) and then, presented the recommendations. Thus, the application of these suggestions has helped to improve the stakeholder experience and participation in learnerships. Likewise, an improvement in the system promotes participation from the ICT Employer Organisations. For instance, on the 30 November 2022, during the MICT SETA

Stakeholder Session, our organisation was given an opportunity to share the research study findings. The presentation of the findings received a positive feedback from the stakeholders as a result our administration team has observed an unprecedented number of calls in the past three months from the ICT Employer Organisations. According to Griffin (2016) the successful implementation of learnership programmes contributes directly towards poverty alleviation, youth job-creation, youth empowerment, reduction of crime and drug abuse, and promotes socio-economic development and transformation.

5.5 Conclusion

This study focused on evaluating the role of the private sector in promoting ICT skills development for youth employment in South Africa. The study sought to determine whether the role of the private sector contributed to the promotion of ICT skills development for youth employment in South Africa. Furthermore, an investigation of whether the Sector Education Training Authorities (SETAs), (specifically, MICT SETA) operational design and interventions provided appropriate decisive involvement in achieving the intended results by the South African government, of partnering with the private sector in funding unemployed youth programmes to bridge the skills gap (scarce and critical skills).

The major question that this study aimed to address was: what is the current state of the learnership system, mainly, the ICT industry and what are the critical factors contributing to its efficient and effective implementation or lack thereof? The findings discussed in the previous chapter revealed a diverse picture of learnership implementation that brought to light both present challenges as well as achievements from the stakeholders' perspective.

As is to be expected in the context of low involvement of employers in the learnership system there is strong evidence that the overall satisfaction of the participating employers and training providers is very low. Crucially though, the current low level of satisfaction does not provide the basis to cast aspersions on the utter failure of the learnership system. Because the majority of respondents deem

the system as an appropriate means for talent development for the ICT industry. However, the criticisms expressed by respondents are strongly related to issues of practical implementation, SETA corruption, the lack of SETA accountability and poor support from SETA in the implementation of learnerships. Overall, the majority of respondents perceive learnerships as the viable training model that provides them the opportunity to obtain skills as a channel into the jobs market.

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Annexures

Annexure A: Consent Letter - Employer Email Cover-Page

10 October 2021

To whom it may concern

RE: Request to conduct in-person interviews in your organization as part of the Masters Programme scientific research study.

Dear Sir/ Madam

In refers to the above-mentioned subject matter, my name is **Siviwe Kase and** I am doing research under the supervision of **Dr. T. Taylor,** a senior lecturer towards a MSc. MOTI at the Da Vinci Institute.

I am required to complete a survey to help shape my studies on: *The role of the private sector in the promotion of skills development for youth employment in South Africa*

It is my understanding that your organisation has been actively involved in the implementation of learnerships for the unemployed youth. Thus, I would greatly appreciate your participation in the study by formally granting me permission to hold in-person interviews with the following employees:
1. HR Manager/ Training Manager/
2. Company Skills Development Facilitator (SDF)
3. Training Coordinator/s (x 2 maximum)

Note: *Please be assured that all responses will remain completely confidential and hold no weight or bearing to your relationship with the government or government agencies.*

Kindly suggest two possible dates and time for an in-person interviews with the above-mentioned candidates.
All responses will be held in confidence as this is academic research not affiliated to government or any organ of the state. (See the attached Annexures C & F)

Sincere regards,

Siviwe Kase
Mobile: 067 122 1307
Dr T. Taylor

Mobile: 082 456 8400

Annexure B: Consent Letter - Employer Interview Overview

Date: **10 October 2021**
Title: **The role of the private sector in the promotion of skills development for youth employment in South Africa**

Dear prospective participant
My name is **Siviwe Kase** and I am doing research under the supervision of **Dr. T. Taylor** , a senior lecturer towards a MSc. MOTI at the Da Vinci Institute. We are inviting you to participate in a study entitled **the role of the private sector in the promotion of skills development for youth employment in South Africa.**

What is the purpose of the study?
This study is expected to collect important information that could help to encourage both government (MICT Seta) and private sector employers in the ICT industry to improve their commitment in supporting skills development for youth employment.

Why are you being invited to participate?
You are invited because your organization is listed among the few private sector organization successfully implementing and supporting the MICT Seta unemployed youth Learnership Programmes. I have been referred to your organization by both Mguka TVET College and MICT Seta research department. There are 10 private sector organization Skills Development Facilitator (SDF) from the ICT Sector, which is, the total number of currently active organization supporting unemployed youth interventions.

What is the nature of your participation in this study?
The nature of your organization's participation is in the study will be in a form of an in-person interview at your offices or online (via Zoom or MS Teams), scheduled to take approximately 30 min. The interview contains questions related to the general satisfaction with the learnerships, learner recruitment, challenges in implementing learnerships, and learnership outcomes.

Can you withdraw from this study even after having agreed to participate?

Kindly note that participating in this study is voluntary and no candidate is under obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason.

What are the potential benefits of taking part in this study?

This study is purely private academic research, so participation is voluntarily to support the researcher. There's no financial compensation available. However, the findings of this study could be beneficial in a long run to the unemployed youth owing to the encouragement of employers to increase contribution towards unemployed youth skills development interventions.

Are there any negative consequences for participating in the research project?

The only identified inconvenience and/or discomfort to the participants will be the 30 min time allocated to complete the in-person interview.

Will the information that the participant conveys to the researcher and his/her identity be kept confidential?

Anonymity and strict confidentiality will be adhered to by the researcher and the research team throughout the study. All the data related to the study will be stored electronically on the cloud-system with password encryption and at the end of the study only the researcher will have access to the cloud-storage file.

Sincere regards,

Siviwe Kase
Mobile: 067 122 130
Dr T. Taylor
Mobile: 082 456 8400

Annexure C: Learner Consent Letter

Date: **10 October 2021**
Title: **The role of the private sector in the promotion of skills development for youth employment in South Africa**

Dear prospective participant

My name is **Siviwe Kase,** and I am doing research under the supervision of **Dr. T. Taylor** , a senior lecturer towards a MSc. MOTI at the Da Vinci Institute. We are inviting you to participate in a study entitled **The role of the private sector in the promotion of skills development for youth employment in South Africa.**

What is the purpose of the study?
This study is expected to collect important information that could help to encourage both government (MICT Seta) and private sector employers in the ICT industry to improve their commitment in supporting skills development for youth employment.

Why are you being invited to participate?
You are invited because you are among the unemployed youth who graduated from an MICT Seta Learnership Programme, between 2014 - 2018 period.
I obtained your contact details from Mguka TVET College. Through random selection, 150 graduate learners have been chosen to participate in the study based on the list of learners who participated in the MICT Seta learnership programmes between 2014-18 and graduated at the end of the intervention.

What is the nature of your participation in this study?
Describe the participant's actual role in the study.
All 150 graduate learners selected to participate in the study will be sent a once-off 4-page questionnaire via email, titled "**Research Study by Siviwe Kase."** It should take approximately 7 - 10 min to complete and submit answers electronically. The questionnaire contains questions related to statistical data (age, race, gender), general satisfaction with the learnership, and learnership outcomes.

Can you withdraw from this study even after having agreed to participate?
Kindly note that participating in this study is voluntary and no candidate is under obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent (all Mguka TVET College learners are older than 18) form. You are free to withdraw at any time and without giving a reason.

What are the potential benefits of taking part in this study?
Kindly note that this is purely a private academic research study, participation is voluntarily to support the researcher. Therefore, no-one will be paid and/or be given any form of allowance nor stipend. However, the findings of this study could be beneficial in a long run to the unemployed youth owing to the encouragement of employers to increase contribution towards unemployed youth skills programmes.

Are there any negative consequences for participating in the research project?
The only identified inconvenience and/or discomfort to the participants will be the 7 – 10 min time allocated to complete the electronic questionnaire.

Will the information that the participant conveys to the researcher and his/her identity be kept confidential?
Anonymity and strict confidentiality will be adhered to by the researcher and the research team throughout the study. All the data related to the study will be stored electronically on the cloud-system with password encryption and at the end of the study only the researcher will have access to the cloud-system file.

Sincere regards,

Siviwe Kase
Mobile: 067 122 1307
Dr T. Taylor
Mobile: 082 456 8400

Annexure D: Learner Questionnaire

Learner Questionnaire

MICT Seta - Unemployed Learnerships

Questionnaire on the effectiveness of the system for unemployed youth participating in a learnership (NQF Level 4): National Certificate: Technical Support

I am a Masters student from Da Vinci Institute, conducting a quality assurance survey in MICT Sector Learnerships.
Objective of the survey: To contribute towards the improvement of the learnerships system in the near future

This online survey will take about 7 - 10 min. (Maximum)

Do you have time for this survey? ☐ Yes ☐ No

if no, when and what time can you complete this survey? _____

A. General satisfaction

How satisfied are you in general with your learnership?

extremely satisfied	very satisfied	satisfied	not very satisfied	not at all satisfied
☐	☐	☐	☐	☐

Please state your major reasons (provide 3 maximum reasons)
1
2
3

B. Learnership outcome

After completing your learnership: How well do you feel prepared to apply your newly aquired skills?

extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared
☐	☐	☐	☐	☐

With regards to:

	extremely well prepared	very well prepared	prepared	not very well prepared	not at all prepared
Technical competence (professional knowledge & expertise in the occupation	☐	☐	☐	☐	☐
Methodological competence (ability to practically apply the acquired knowledge & deal with problems	☐	☐	☐	☐	☐
Interpersonal competence (ability to interact socially in the workplace)	☐	☐	☐	☐	☐

According to your opinion - what should be address more in the future? Multiple selections allowed:

Technical competence	Methodical competence	Interpersonal competence
☐	☐	☐

C. Statistical data & general comments

What is your age?

Age 18-24	25-34	≥35

Race/ group?

African	Coloured	Indian	White	Other

What is your gender?

Male	Female	Other

Disability?

Disable	No Disability

Are there any general comments,ideas, suggestions on learnerships in the MICT industry you would like to share?

Annexure E: Employer Interview Questions

Interview Questions

1. What is your general experience & perception on the unemployed youth learnerships?

   Response:

2. How do you recruit learners for the unemployed youth learnership?

   Response:

3. In your understanding, how are the learners assessed during the programme?

   Response:

4. Are you satisfied by the quality of training provided by the training provider?

extremely satisfied	very satisfied	satisfied	not very satisfied	not at all satisfied
☐	☐	☐	☐	☐

   Pease support your response:

5. Are you satisfied by the learner performance?

extremely satisfied	very satisfied	satisfied	not very satisfied	not at all satisfied
☐	☐	☐	☐	☐

   Support your response:

6. What are the responsibilities of your Organization in the Implementation of Learnerships?

   Response:

7. Based on your previous experience, do you think your organization is effectively performing its role in the implementation of learnerships?

   Provide examples from your experience or that of your colleagues to support your response

Annexure F: MICT Seta Interview Questions

MICT Seta: Interview Questions

1. What is your general experience & perception on the unemployed youth learnership programme?

   Response:

2. What is the role of the MICT Seta in respect to the implementation of the unemployed youth learnerships?

   Response:

3. Based on your experience and that of your colleagues, is the Seta effectively playing its role in the implementation of unemployed learnerships?

   Please support your response with practical examples:

4. What are the challenges experienced by MICT Seta in the implementation of unemployment learnerships?

   Response:

5. In line with the above response, what are your suggestions and/ or recommendations that can significantly improve the success rate of the unemployed youth learnerships?

   Please support your response with at least 2 practical examples:

Annexure G: Training Provider & Facilitator Interview Questions

Training Provider & Facilitator: Interview Questions

1. What is your general experience & perception on the unemployed youth learnership programme?

   Response:

2. What is your role and that of your organization in the implementation of unemployed learnerships?

   Response:

3. In reference to your personal experience and that of your colleagues, does your organization effectively play its role and is your organization committed in delivering quality training?

   Please support your response with at least 3 practical examples:

4. What challenges have you personally experienced in the implementation of unemployed youth learnerships? Are these challenges different from those experienced by your organization?

   Please support your response with 2 practical examples:

5. In line with the above, what are the challenges experienced by your organization in the implementation of unemployed youth learnerships?

   Response:

6. Based on your experience, what changes/ improvements do you suggest that can significantly contribute to the successful implementation of unemployed youth learnerships soon?

   Please support your response with 2 practical examples:

Annexure H: Gatekeeper's Approval

Consent form to conduct research at my company	
I,	
Representative of	
My capacity:	
Give my permission that ……may conduct research at my company. This research has been explained to me and I understand what participation in this research will involve. I reserve the right to withdraw this permission at any time. I also understand that research reports will be available in the library and IIE Repository.	
Select below:	
• I request that my company's identity be kept confidential.	
• My company may be identified in the study	
Signature	**Date**

Annexure I: Ethical Clearance Certificate

The Da Vinci Institute for Technology Management (Pty) Ltd
PO Box 185, Modderfontein, 1645, South Africa
Tel + 27 11 608 1331 Fax +27 11 608 1380
www.davinci.ac.za

Reference: 00322
Date: 04 January 2022

Ethical Declaration

I, the undersigned, hereby declare that the Masters Research of the student named below has received ethical clearance from The Da Vinci Institute Ethics Committee. The student and supervisor will be expected to continue to uphold the Da Vinci Institute's Research Ethics Policy as indicated during the application.

Proposed Title: The Role of Private sector in the promotion of skills development for youth employment in South Africa

Student Name: Kase Siviwe

Student number: 6429

Supervisor: Dr Taylor Tish

Co-Supervisor: N/A

Period: Ethics approval is granted from 2022/02/04 to 2022/06/30

Chairperson: Research & Ethics Committee

Prof HB Klopper
Executive Dean: Research and Institutional Partnerships