



**“Small Micro Medium Enterprise’s perceptions towards Business Incubation –  
Chemical Incubator”**

**By**

**Thembeke Nsimbi**

**Student Number 202522999**

**A dissertation submitted in partial fulfilment of the requirements for the  
degree of Master of Business Administration (MBA)**

**Graduate School of Business and Leadership College of Law and  
Management Studies**

**Supervisor: Dr CT Chikandiwa**

**Year of Submission**

**2021**

## DECLARATION

I, Thembeke Nsimbi, declare that:

- The research reported in this thesis, SMALL, MICRO AND MEDIUM ENTERPRISE'S PERCEPTIONS TOWARDS BUSINESS INCUBATION - CHEMICAL INCUBATOR is my original work.
- This thesis has not been submitted for any degree or examination at any other university.
- This thesis does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
- This thesis does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:
  - a) their words have been re-written but the general information attributed to them has been referenced;
  - b) where their exact words have been used, their writing has been placed inside quotation marks, and referenced.
  - c) Where I have reproduced a publication of which I am author, co-author or editor, I have indicated in detail which part of the publication was actually written by myself alone and have fully referenced such publications.
  - d) This thesis does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged, and the source being detailed in the thesis and in the References sections.

Sign



Date: 19/04/2021

## ACKNOWLEDGEMENTS

To begin with, my deepest gratitude and appreciation also goes to firstly My Husband for the support and encouraging words while writing this research report. I am truly blessed to have you around me. Thank you.

I would like to convey my sincere gratitude to My Supervisor, Dr Christopher Chikandiwa for his pragmatic and articulate tutorial approach and inspiring leadership which kept me firmly focused on accomplishing this work. You have helped me grow both professionally and academically as a researcher.

Moving on, I would also like to thank the management of Chemin for granting approval of the study and for allowing Incubatees and Graduates to participate in the study.

Special thanks to the Incubatees and Graduates from the Chemin Incubation Programme who sacrificed their time and effort to provide valuable ideas, insights and inputs necessary to compile this thesis. Truly speaking, this thesis would not have materialised without their consent to partake in this study.

Finally, I wish to thank my one special friend Ms Zola Ndlovu for always encouraging and supporting me with this thesis.

This Thesis is dedicated to the love of my life, my life coach - my late Grandmother Gugu Diane Ntanda and my everything, my hero – my late Father Zibuse Micheal “Mthwazi” Mlaba. I thank God for both of you. I will always love and miss you. Your love and support have been a blessing in my entire life.

## ABSTRACT

Development, growth and sustenance of Small Micro Medium Enterprise's (SMME's) activities has become a key policy priority for most governments around the world; including South Africa. SMME's growth has been positively linked to employment creation, poverty reduction and wealth generation. Recognising this imperative, the South African Government has institutionalised business incubation practice to stimulate SMME growth and sustainability. Despite this commitment, however, SMME failures continued unabatedly; with many start-ups struggling to pass the infant stage; which in turn limits their contribution to socio-economic development. The aim of this study was to comparatively evaluate the general perceptions and attitudes of Incubatees and Graduates towards the Chemical Incubator Programme (Chemin). Based on qualitative research and purposive sampling, data was collected from 12 Participants i.e. 6 incubatees and 6 graduates, through semi-structured interviews. Thematic analysis was used to extract meaning from the data Overall, the results suggest that Incubatees and graduates had different but complementary perceptions on the reasons for joining the incubation programme; which included infrastructure; technology, business information and skills; and exposure to chemical manufacturing practices. Although there were marked differences in attitudes towards Incubation services, however, some participants on both sides agreed that the programme added value to their business in terms of marketing, resources and business networking. Participants also differed on the role of government in funding incubators. While some Incubatees and graduates felt government had a statutory obligation to finance SMMEs, other participants felt that entrepreneurs should use their vision to grow their business rather than rely solely on state funding. This reveals differences in terms of entrepreneurial orientation among the participants on both sides, with opportunity entrepreneurs focusing on business growth, job creation and youth skills development; while survivalist entrepreneurs were concerned with subsistence. The study enhances understanding of how customised entrepreneurial learning and knowledge sharing systems can improve the innovative capabilities, growth and sustainability of incubated small businesses in South Africa.

**Key words:** Business incubation, entrepreneurship, Incubatees, Incubator, SMME's.

# TABLE OF CONTENTS

DECLARATION.....	ii
TITLE PAGE .....	iii
ACKNOWLEDGEMENTS .....	iii
ABSTRACT .....	iv
LIST OF TABLES.....	xiii
LIST OF FIGURES.....	x
ACRONYMS AND ABBREVIATIONS.....	xi
CHAPTER ONE: INTRODUCTION .....	1
1.1 Introduction .....	1
1.1.1 The Chemin Business Incubation Programme .....	3
1.2 Motivation for the study.....	4
1.3 Problem statement.....	7
1.4 Focus of the study .....	9
1.5 The aim of the study .....	9
1.5.1 Specific objectives.....	9
1.5.2 Research questions.....	10
1.6 Expected outcomes .....	10
1.7 Methodology .....	10
1.8 Delimitations .....	11
1.9 Assumptions .....	11
1.10 Significance of the study.....	11
1.11 Chapter outline .....	13
1.12 Conclusion .....	14
CHAPTER TWO: LITERATURE REVIEW .....	15
2.1 Introduction .....	15
2.2 Clarification of key concepts.....	16
2.2.1 Business incubation.....	16
2.2.2 Empirical definitions of business incubation .....	16
2.2.2.1 Evolution of business incubation .....	18
2.2.3 Business Incubatees.....	19
2.2.4 Entrepreneurship .....	20
2.2.5 Incubation Graduates .....	20
2.2.6 Small Micro and Medium Enterprises.....	20
2.2.7 Perceptions and attitudes .....	20
2.2.8 Incubatees and Graduates perceptions on Business Incubation .....	21
2.2.9 Value add of the Business Incubator support services .....	21
2.2.10 The role of Incubated SMMEs in the economy .....	22
2.2.11 Sustainability of the Business Incubators .....	23

2.3 Types of business incubation programmes .....	23
2.4 Business incubation models .....	25
2.5 Underpinning theory .....	26
2.5.1 The Knowledge-based view (KBV).....	26
2.5.2 The Resource based view (RBV) .....	28
2.5.3 The Social Network Theory .....	29
2.5.4 Relevance to the study .....	30
2.6 Empirical review and knowledge gaps .....	30
2.6.1 Empirical studies.....	30
2.6.2 Knowledge gaps .....	33
2.7 Conclusion.....	35
CHAPTER THREE: RESEARCH METHODOLOGY .....	36
3.1 Introduction .....	36
3.2 Research design.....	36
3.2.1 Benefits of case study method .....	37
3.2.2 Research Paradigm.....	37
3.3. Data collection methods .....	38
3.3.1 Semi-structured interviews .....	38
3.3.1.1 Why semis-structured interviews?.....	38
3.4 Study area and target population .....	39
3.4.1 Population.....	39
3.4.2 Sampling method and sample size .....	39
3.4.3 Data saturation .....	40
3.4.4 Coding of the Participants.....	40
3.5 Pre-testing of the Interview Schedule .....	41
3.6 Trustworthiness .....	42
3.6.1 Mitigating insider researcher bias.....	43
3.7 The data gathering process.....	43
3.8 Data analysis Framework .....	44
3.9 Adherence to research ethics .....	45
3.9.1 Obtaining informed consent from participants .....	45
3.9.2 Permission to conduct study.....	46
3.9.3 Prevention of harm to the respondents .....	46
3.9.4 Anonymity, confidentiality and privacy.....	46
3.9.5 Reaching out to Participants.....	46
3.9.6 Debriefing of the Participants .....	47
3.9.7 Acknowledgement of sources used.....	47
3.10 Conclusion .....	47
CHAPTER FOUR: PRESENTATION OF RESULTS .....	48
4.1 Introduction .....	48
4.2 Participants' demographic profile.....	48
4.3. Key findings .....	51

4.3.1 Research objective 1: To provide a comparative understanding of the reasons that prompted Incubatees and Graduates join the Chemin Incubation Programme.....	51
4.3.2 Research objective 2: To compare the perceptions of Incubatees and Graduates towards the Chemin Incubation Programme .....	53
4.3.2.1 Perceptions on the value and limitations of incubation services .....	54
4.2.3 Perceptions on the incubation process.....	57
4.3.3 Research objective 3: To find out if the Incubatees and Graduates understand the government's goal of funding business incubation initiatives.....	59
4.3.3.1 Perceptions on government's goal of funding business incubation .....	59
4.3.3.1 Perceptual differences on the role and mandate of the incubator.....	62
4.3.3.2 Perceptions on contribution of incubated SMMEs to the economy .....	63
4.4 Conclusion .....	66
CHAPTER FIVE: DISCUSSION OF FINDINGS .....	67
5.0 Introduction .....	67
5.1 Reasons for joining the Chemin Business Incubation Programmes .....	67
5.1.1 Desire to learn and grow as an entrepreneur .....	67
5.1.2 Business skills and experience.....	68
5.1.3 Resources and business infrastructure .....	70
5.1.4 Technical support services .....	71
5.1.5 Marketing and business networking .....	73
5.2 Comparison of the perceptions of Incubatees and Graduates towards the Chemin Incubation Programme .....	74
5.2.1 Perceptions on programme effectiveness .....	75
5.2.2 Perceptions on the incubation process.....	76
5.3 Comparisons of the understandings of Incubatees and Graduates on government's decision to fund business incubation initiatives .....	76
5.3.1 Perceptions on funding of business incubation initiatives .....	77
5.3.2 Participants' understanding of their role in the economy.....	77
5.3.3 Comparison of factors affecting business sustainability .....	79
5.4 Conclusion .....	80
CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS.....	81
6.1 Introduction .....	81
6.2 Conclusions .....	81
6.2.1 Research Objective One: To comparatively analyse the reasons that prompted Incubatees and Graduates join the Chemin Incubation Programme .....	81
6.2.2 Research Objective Two: To compare the perceptions of Incubatees and Graduates towards the Chemin Incubation Programme.....	83
6.2.3 Research Objective Three: To compare understandings of Incubatees and Graduates on the government's goal of funding business incubation initiatives.....	85
6.2.4 Knowledge contributions .....	86
6.2.4.1 Entrepreneurship theory .....	86
6.2.4.2 Business incubation management practice .....	87

6.2.4.3 Business Incubation Policy .....	87
6.3 Implications and Recommendations.....	87
6.3.1 Implications .....	87
6.3.2 Recommendations.....	88
6.3.2.1 Prioritise support for opportunity entrepreneurs .....	88
6.3.2.2 Place survivalist entrepreneurs in government-led projects.....	88
6.3.2.3 Track and monitor Graduates after incubation .....	88
6.3.2.4 Explore opportunities to adapt incubation funding model.....	89
6.3.2.5 Leverage digital technology to enhance incubatee learning .....	89
6.3.2.6 Encourage self-development among Incubatees .....	89
6.3.2.7 Capacitate incubation teams across departments .....	89
6.4 Limitations of the study .....	90
6.5 Conclusion and Future Research .....	90
References .....	91
APPENDICES .....	116
Appendix 1 Consent Form .....	116
Appendix 2 Interview Schedule.....	117
Appendix 3 Interview Guide .....	118
Appendix 4 Turn-it-in report .....	119
Appendix 5 Ethics Clearance .....	120
Appendix 6 Gatekeepers letter.....	121

## LIST OF TABLES

Table 2.1 Definitions of business incubation.....	17
Table 2.2 Types of incubation programmes .....	24
Table 2.3 Business incubation models .....	25
Table 2.4 Types of learning in incubation programmes .....	27
Table 3.1 Sample size.....	40
Table 3.2 Coding of Participants .....	41
Table 4.1 Current Incubatees .....	49
Table 4.2 Graduates .....	50

## LIST OF FIGURES

Figure 2.1 Evolution of business incubation.....	18
Figure 3.1 Process followed to pilot the interview.....	41
Figure 3.2 Steps followed to analyse data.....	44
Figure 5.1 Common reasons for joining incubation .....	68
Figure 5.2 A linear technology transfer process .....	72

## ACRONYMS AND ABBREVIATIONS

BDS	Business Development Service
BSS	Business support services
EO	Entrepreneurial orientation
PWE	Prior work experience
SEDA	Small Enterprise Development Agency
ICT	Information and Communications Technology
DTI	Department of Trade and Industry
GSTS	Graduate Student Tracking System
TBI	Technology Business Incubation
SABS	South African Bureau of Standards
SCM	Supply chain management
SMMEs	Small, Micro and Medium Enterprises
STP	Seda Technology Programme
TBFs	Technology-based firms
RVB	The Resource-based View
NBE	Necessity based Entrepreneurship
OBE	Opportunity based Entrepreneurship
OL	Organisational Learning

# CHAPTER ONE

## INTRODUCTION

### 1.1 Introduction

This chapter orients the study by describing its context, motivation, scope and the underlying research problem. Other essential elements of the study highlighted here include the purpose, research questions, specific objectives, expected outcomes, delimitations, assumptions, significance and limitations of the study.

Globally, business incubation has been recognised as playing a vital role in accelerating and strengthening growth and prosperity of SMMEs as catalysts for both economic and social development (Al-Mubarak & Buslerr, 2017). The demand for business incubation has grown tremendously with as much as 70% of these reportedly successfully and contributing significantly to employment creation, skills building, poverty alleviation and sustainable development (Ogutu & Kihonge, 2015, p.231). Internationally, business incubators have been seen as key drivers of business growth, innovation and technological transfer (Meyer, 2019, p.6).

While most industrialised countries have generally focused incubation policy efforts on building industrial hubs and technological innovation, developing countries, on the other hand, have prioritised access to funding and resources as key to igniting and sustaining SMME activities (Al-Mubarak et al 2014). In many African states, business incubation programmes have been used to help budding entrepreneurs access opportunities created by information and communications technology (ICT); and related SMME support services, such as market research, sales and exports across sectors (Lose, 2021, p.2).

Within the South African context, the need to incubate small businesses is firmly rooted in GODISA, a Setswana word which literary means “helping to grow” (Buys and Mbewana, 2007). Led by the Ministry of Trade and Industry; GODISA comprises 12 centres nationally. A key objective of GODISA was to institutionalise and integrate SMME incubation services to enhance their growth and sustainability. SMMEs were seen as an important strategic ally in assisting government to tackle challenges of

poverty, unemployment, inequality, and to build an inclusive economy that benefits all citizens (Bezuidenhout, 2018).

More importantly, GODISA would also help government to mitigate widespread venture failures in the SMME sector (Khuzwayo, 2015). However, SMME incubation services in South Africa have been hampered by several challenges, such as funding constraints (Organisation for Economic Cooperation and Development, 2015); limited management capabilities (Tarwirei, 2015); lack of skilled personnel (Hung, Cant and Wild, 2016); and fragmented implementation approaches (Fourie, 2015). Clearly these issues warrant an analysis of business incubation practice in the chemical manufacturing industry.

While SMME growth and survival is seen as fundamental to innovation, economic growth and employment creation (Styve & Stubberud, 2018:1), SMMEs in South African continue to experience acute challenges in finance, resources, skills and operational capacity (Maloka & Dlamini, 2016, 121); which increases business failures. Compounding the problem is the fact that there has been very little empirical accounts on the effectiveness of business incubation programmes; especially in emerging markets (Msimango-Galawe & Hlatshwayo, 2021, p.195). In the same vein, Styve & Stubberud (2018) notes that previous studies on incubated SMMEs have produced conflicting results; leaving many questions unanswered about efficacy of these programmes in creating sustainable enterprises.

A number of comparative studies locally and internationally have attempted to assess the impact of business incubation programmes on SMME success. One such study, Tiren (2020) found that even though incubation services had been provided to the observed firms, however, this did not necessarily lead to significant improvements in business performance. Instead, business success was largely shaped by the creative and innovative capabilities of the owner rather than incubation. Sehitoglu & Ozdemir (2013, p.172) undertook a comprehensive systematic review on the same topic and their study registered notable improvements in SMMEs that had received incubation services prior to entering the market; significantly outperforming those that had not accessed these services.

Msimango-Galawe & Hlatshwayo (2021, p.194) evaluated the effectiveness and impact of incubators on SME success. The results show that although incubation services helped

stabilise budding SMMEs, they were unable to reduce the high failure rate among small businesses. In related comparative study, Ndlovu & Murimba (2018) evaluated the impact of incubator services on SMME growth in South Africa. Their findings affirm that the only types of incubation services that contributed to business growth were business networking, individualised coaching and mentoring and customised business skills training. Another study by Lose, Rens, Yakobi & Kwahene (2020) investigated challenges confronting technology-driven SMME and their results show that growth was constrained by lack of finance, limited capacity due to lack of facilities, crime and entrepreneurial orientation and competencies.

Deducing from the above studies, it is clear that comparative research on business incubation in South Africa is fragmented and inconclusive as they focus on different analytical variables, resulting contradictory conclusions. Evidently, this shows that there is paucity of research on the effectiveness of business incubation programmes in South Africa; which warranted the present study. The efficacy and dependability of business incubators is particularly important for South Africa given the widespread incidents of poverty, chronic youth unemployment, high school dropout rates, slow economic growth, informality, and widening inequality gaps in the distribution of economic resources (Robina-Ramírez & Human, 2019, p.3078).

### **1.1.1 The Chemin Business Incubation Programme**

Chemin is a technology business incubator specialising in supporting the start-up and growth of small and medium enterprises in the downstream chemical industry. These sectors include relatively high value pure chemicals that are typically used as active ingredients in formulated products such as cosmetics, cleaning detergents and perfumes, as well as all formulated speciality chemicals used in industrial and non-consumer applications (e.g. paints, mining chemicals, textile specialities, paper chemicals, etc.), and pure chemicals used primarily for their functional properties (e.g. surfactants, biocides, etc.), but does not exclude the production of other downstream chemicals (Chemin Annual Report, 2011-2012, p.6-7). The total client portfolio comprises 72 companies located in the Eastern Cape, KwaZulu Natal and Gauteng Provinces. Of the 72 companies under incubation, 32 are SMEs that generated in excess of R4.9 million revenue and the balance are projects under development. The incubator established 18 SME companies and

graduated four incubatees, in the process 88 permanent jobs were created. Extensive Incubator staff training and mentorship aimed at having a small but professional team. The programme is mainly funded through CHIETA (Work Place Experience – R180 000, Graduate Development R108 000 and Broad Based Black Economic Empowerment R90 000). The incubator further intends to set up a 6 months Accelerator Programme specifically for graduated clients that have potential to become international companies. The pillar of the accelerator programme will be a seed fund with two products, namely, accelerator fund and the development fund. Apart from technology, Chemin also provides business nurturing services to incubator clients, such as mentoring facilitation, partnering and networking assistance, strategic and business planning services, accounting and financial management support, including tax assistance, maximising utilisation of existing governmental industrial incentive packages and sourcing of developmental funding, as well as seed, venture, equity or asset finance. Existing basic infrastructure and equipment are available to Incubatees on-site. Business support services also include office space and equipment, telecommunication facilities, Internet and e-mail facilities, IT equipment and software and laboratory facilities (Chemin Annual Report, 2011-2012, p.6-7). The two target groups i.e. incubatees and graduates were largely concentrated in KwaZulu-Natal, predominantly in and around the Durban area.

## **1.2 Motivation for the study**

Despite support services from GODISA, venture creation in South Africa compares unfavourably with other emerging economies such as Brazil and Australia (Bruwer and Coetzee, 2016). Empirically, it has been shown that most start-up ventures in the SA economy hardly transcend the infant stage (GEM Report, 2018), raising concerns about the performance and sustainability of SMMEs in the economy. Incubation services are therefore critical in stabilising and revitalising SMMEs as catalysts for social and economic transformation in both industrialised and emerging economies. Following the democratisation process in 1994, several major policies, legislation and institutional networks were launched to stabilise, revitalise and promote the SMME sector (Malefane, 2013). The first of these was the *“White Paper on National Strategy for the Development of Small Business in South Africa”*, which prioritised provision of integrated support services across all sectors of the economy (Cheru, 2010). The second initiative was the creation of the GODISA Trust in 2000; which was specifically designed to scale up provision of

incubation services to emerging SMMEs (Buys and Mbewana, 2007b). Advancing and strengthening the SMME sector was central to government's objective of accelerating transformation and promoting inclusive economic growth (Marks and Hidden, 2017 and Masocha, 2019). Increased policy focus on SMME growth and sustainability stems from the realisation that no government can achieve sustainable development without the contribution of SMMEs (Nema, and Verma, 2019).

Government's goal to formalise and improve SMME incubation services in South Africa became much clearer with the creation of SEDA in 2004. One of the key strategic goals of SEDA was to effectively coordinate provision of support in order to reinforce SMME activities nationally. Subsequently, the Seda Technology Programme (STP) was introduced to provide funding to small business incubation centres across the country. Approximately forty seven incubation centres are currently financed through the STP (SEDA, 2015). Provision of SMME support services has also been improved as a result of the creation of the Department of Small Business; whose mandate entails advancing the needs and interests of SMMEs across the board (Parliament, 2014). During the 2014 fiscal year, National Treasury allocated R475 million to boost SMMEs and cooperatives. In addition, SMME tax incentives were revised and moderated from 73 650 to R75, 000 to shore up SMME development and employment generating activities (Gordan, 2016). In 2015, the DTI allocated R498 282 000 to SEDA. From this amount, R126 368 000 was subsequently allocated to the Seda Trust Programme to stabilise and strengthen SMME incubation centres across the country. It remains to be seen whether these initiatives have translated into tangible results for SMMEs particularly in the chemical industry which is the primary focus of this investigation.

Having outlined the importance of business incubation as well as SMMEs and Entrepreneurs, the study focuses on perception of current (Incubatees) and past beneficiaries (Graduates) towards incubation services rendered by Chemin. In entrepreneurial contexts, incubation has been variously interpreted as a concerted effort by public entities and the private sector to provide integrated support services to SMMEs; including technology, industry expertise, infrastructure and logistics, workstations, equipment, facilities, business systems and processes, facilities and human resource management to help them grow sustainably (Briggs, 2016; Ayatse, 2017 and Nair and Thomas, 2018). It is about creating a favourable and supportive environment that nurtures

SMME growth and development (Meckel, 2014). However in South Africa there was no academic definition that could be found of business incubation but different industries define it as a process that is normally over three years to a selected number of SMME's and Entrepreneurs depending on the size of the incubator and most of the time excludes post incubation (Lose and Tengeh, 2015). Examination of beneficiaries' perceptions is important given the need for high quality incubation services that foster an entrepreneurial culture, innovation and employment creation (Rizzi, 2017).

The study is motivated by lack of empirical data on the perceptions of incubates and Graduates regarding the nature, scope and quality of incubation services as incubation research is still emerging in South Africa (Masutha and Rogerson, 2014 and Lose, 2016). With all the initiatives and investment that the government is pledging, one would expect to find literature that concentrated on whether the South African business incubation beneficiaries or SMME's and Entrepreneurs at large understand that the world sees them as catalyst for social and economic development; employment, skills development and equitable wealth distribution in the country; given the need to fund and strengthen their incubators.

“With Unemployment notching 29.1% and poverty rates exceeding the 50% threshold and inequality rates close to the highest level since the transition to democracy, business incubation becomes a critical policy intervention to generate job opportunities for the majority of the population struggling to meet their daily living needs” (Statistics South Africa, 2018 and De Jongh, 2020). Studies evaluating the effectiveness of business incubation have not been able to provide plausible explanations of how these programmes benefit current incubatees and graduates of such programmes. Not much research has been undertaken to evaluate the attitudes and perceptions of SMME owners who have been exposed to various incubation programmes in South Africa.

Given this knowledge, this study used the Chemin Business Incubation Programme as a case study to understand perceptions of Incubatees and Graduates towards the Business Incubator. Launched in 2002, Chemin is a non-profit organisation designed to support technology-oriented new ventures in the SA chemical industry. The organisation's approach to business incubation is to provide a nurturing and empowering environment that fosters collaborative working relationships that embrace creativity, innovation and wealth creation (Chemin, 2017). Spanning a three year period, the programme offers multiple support

services to SMMEs; including laboratory and testing facilities; manufacturing technology and equipment; financial support services and opportunities for collaboration with institutions of higher learning, industry experts, funders and relevant state agencies responsible for SMME development (Chemin, 2017).

### **1.3 Problem statement**

Sustained small business failure in different economic sectors is one of the formidable challenges confronting policy makers, particularly in developing countries such as South Africa. And business incubation has been seen as a viable solution in reducing the high failure rate among SMMEs. This has prompted radical policy shifts towards incubation worldwide (Schutte, 2019:1). Despite this increased focus on business incubation as one of the key drivers of SMME growth, the benefits of incubation and the sustainability of incubators have not properly documented empirically. A lot of questions remain unanswered about the ability of these programmes to empower small business owners with competences and resource capabilities to help them grow and sustain their enterprises beyond incubation (Msimango-Galawe & Hlatshwayo, 2021, p.194-195). Simply put, little robust evidence exists to explain the positive impacts of business incubation, particularly on marginalised small firms (Bone, Gonzalez-Uribe, Haley & Lahr, 2019). While there has been considerable explosion of scholarly interest in business incubation abroad, this subject remains largely under researched in emerging markets, with little focus post-incubation experiences (Allahar & Brathwaite, 2016).

The evaluation of incubatee and graduates perceptions and attitudes towards incubator services is crucial in this study as there are very few studies that consider the post-graduation perceptions and attitudes of incubated SMME owners/managers in South Africa. The study enhances understanding of how incubator services are perceived by both present and past clients within the South African IB environment. Entrepreneurial attitudes, perceptions and orientations have been found to have a profound impact on the ability of budding entrepreneurs to identify and leverage opportunities to grow and sustain their enterprises (Bowmaker-Falconer & Herrington, 2020, p.9). Because of this, the present study aims to provide a comparative analysis of the attitudes and perceptions of current and past Incubatees towards the Chemin Business Incubation Programme. This research is particularly important given that 29.1 per cent of the population in South Africa is

unemployed; while youth unemployed among those aged 15-24 average 58.2% per cent and 60% new entrants who may not be able to secure employment opportunities in the next few years (GEMSA Report, 2020:22).

Given the above situation, the fundamental problem that warrants this research is that despite continued provision of incubation to start-up ventures in South Africa, however many small businesses still remain constrained and unsustainable; which negates government's goal of ending poverty and unemployment by 2030. Bushe (2019) reports that more than seventy percent of newly established ventures in South Africa go out of business in less than seven years. This raises concerns about the efficacy and responsiveness of incubation programmes in meeting the growth needs of SMMEs. The persistently high failure rate of small businesses in SA necessitates further research to determine whether incubation programmes add value to incubated SMMEs and whether Incubatees and Graduates understand the importance of Business Incubation as a means to tackle unemployment, slow economic growth and inequality. Without a vibrant SMME culture and activities, the ability of the economy to generate quality jobs and skills building opportunities diminishes; making it hard for government to meet development goals (Chiloane-Tsoka and Boya, 2014). Zondo (2016) reinforces this statement by saying that entrepreneurial activities a major source of innovation necessary to enhance productivity in the SA economy and as such their development should be prioritised. Thus effective incubation is important in ensuring that SMME remain firmly operational and viable is of paramount importance for government, big business and society (Ladzani, 2009 and Chimucheka, 2013). But this goal remains elusive; hence the need to understand how Incubatees and Graduates feel about the services offered by their mentor. With most incubation studies focusing mainly on programme implementation issues (Salem, 2014) and impact assessment (Li and Ahmed, 2020); a need exist to provide a contextualised analysis regarding the perceptions of incubated entrepreneurs regarding the services rendered by their mentors and their own role in assisting government to tackle social and economic problems facing the country.

From the problem analysis above, is evident that business incubation research has focused largely on the relationship between incubation and SMME growth (Rzzi, 2017); impact of incubation programmes on SMMEs performance and success (Schutte and Direng, 2019); experiences of Incubatees on incubation services (Allahar and Brathwaite, 2016), and the satisfaction level of Incubatees (Tengeh and Choto, 2015). There is a scholarly gap in terms

of the perceptual similarities and differences between current and past Incubatees regarding the value of incubation programmes in South Africa.

#### **1.4 Focus of the study**

The research was carried out in Chemin's incubation facilities in Durban, KwaZulu-Natal Province. The study was confined to one incubation centre; meaning that SMME incubation programmes in other provinces were not included in the study. The study evaluated the perceptions of Incubatees and Graduates towards business incubation given the knowledge gap in this area. The study focuses on two groups of beneficiaries, namely current Incubatees who have been with the incubator for eighteen months and Graduates who exited the programme over three years.

#### **1.5 The aim of the study**

This study was aimed at providing a comparative analysis of the perceptions of Incubatees and Graduates towards Chemin's Incubation Programme; given the need for SMMEs to contribute to social and economic development nationally.

##### **1.5.1 Specific objectives**

Therefore, the study seeks to achieve the following objectives:

- To comparatively analyse the reasons that prompted Incubatees and Graduates join the Chemin Incubation Programme.
- To compare the perceptions of Incubatees and Graduates towards the Chemin Incubation Programme.
- To compare understandings of Incubatees and Graduates on the government's goal of funding business incubation initiatives

### **1.5.2 Research questions**

The research set out to address three questions, namely:

- Why do Incubatees join the Chemin Incubation programme?
- What is the perception towards business incubation of Chemin Incubatees and Graduates from Chemin Incubation Programme?
- What are the understandings of Incubatees and Graduates about government's goal of funding business incubation initiatives?

### **1.6 Expected outcomes**

The research will demonstrate whether Chemin SMME's (current and past) have the same or different perception towards business incubation. The study will also be able to pick up if current and past Incubatees share the same vision concerning their role in assisting government to drive growth and employment creation. Through this research, it will also be established as to what SMME think should be done by the government to achieve the said goals.

### **1.7 Methodology**

The population in this investigation included 48 SMMEs scattered across three Chemin branches (40 Incubatees and 8 Graduates respectively). Using criterion sampling, the study initially targeted 20 Participants, but this number was eventually reduced to 12 Participants due data saturation. Instead of including all four Chemin branches in the study, 12 Participants were eventually selected from the company's KZN branch. By delving into context and the actual experiences of participants, the qualitative approach enabled detailed interpretation and comprehension of the research problem (Yilmaz, 2013). The study was also strengthened through the application of the case study method. (Yin, 2003); which provided deep insights into how Incubatees and Graduates felt about the value of incubation services offered by Chemin. Qualitative data were obtained using an Interview Schedule consisting of open-ended questions to ensure enough information is obtained for analysis. The principle of saturation was used to indicate that the data collection process was confined to the 12 participants.

## **1.8 Delimitations**

Chemin was chosen as the unit of analysis in the study. The study focused exclusively on current beneficiaries (Incubatees that have been with the programme for the past eighteen months) and post beneficiaries (who graduated in the past three years) across Chemin's three branches. The Incubatees and graduates were concentrated in KwaZulu-Natal, predominantly in and around the Durban area e.g. KwaMashu and other KZN towns such as Newcastle. Private business incubators and other SEDA funded incubators were not incorporated into the current study. The analysis excludes the perceptions of Chemin managers and related issues.

## **1.9 Assumptions**

The fundamental assumptions that shaped this study were as follows:

- Gate keepers' letter will be obtained to conduct semi-structured interviews
- Incubatees who have been in the incubator for more than eighteen months will provide honest and constructive feedback as well as recommendations for the benefit of the next generation and government,
- Participants will not fear to participate,
- No harm will be caused to the Incubatees or to the relationship between Incubatees and Incubator after participating in the interviews and
- Graduates will agree to participate even though they are no longer with the Incubator.

## **1.10 Significance of the study**

Although business incubation has received considerable attention from entrepreneurship studies in recent years, however, very little empirical evidence exist to show how Incubatees and Graduates feel about these services particularly in the chemical manufacturing industry. Current incubation studies cover a wide range of issues; including failure prevention and management (Nair and Blomquist, 2018); the role of technology-based incubation in SMME growth (Lamine, 2017); incubation and innovation (Allahar and Brathwaite, 2016); successes and failures of incubators (Buys, 2007), as well as impact of incubation programmes on SMME success and sustainability (Lose, 2016). Extant evaluation research on incubation programmes is disaggregated into various theoretical positions, focusing on incubator performance;

impact and outcomes, evolution and development of incubators and business accelerators overtime (Ganamotse, Samuelsson, Abankwah, Anthony & Mphela, 2017). “Most of these empirical works are heterogeneous, using different methodological approaches and different measures of business incubation; which in turn has led to vastly different and contradictory findings (Hausberg & Korreck, 2020:166).

Other relevant issues that have been studied include incubator systems and processes (Ayatse, 2017); capacity needs of incubators (Patton, 2013); and incubator-incubatee relationships and their inherent challenges (Hacket and Dilts, 2004). Traditional business incubation literature has also been preoccupied with service quality issues (Harper-Anderson, 2018); incubation management practices (Blok, 2014), Incubateeskills training initiatives (Torun, 2018), impact of incubation strategies on SMME growth and sustainability (Khalid, 2010). As a consequence, not much attention is given to the innovations that Incubatees may want to explore while enrolled on the incubation programme. While these studies provide the basis for understanding business incubation practice in general, however, they fall short of providing an integrated analysis of Incubatees perceptions towards the services that they receive from their host companies, and how SMMEs see their role in supporting government to combat poverty by creating more jobs in the economy.

Although business incubation research has been carried out in over 50 years, however, most of these empirical works (Shepard, 2013; Bhabra, 2014 and Bone, 2017) are focused on developed countries, for example, America, Britain, Australia and Sweden among others. Replication of their best practices may not be wholly appropriate in an emerging economy with diverse cultural dynamics (Khalid, 2010). Despite phenomenal growth of literature on SMME activities, little evidence exists to explain whether incubated firms become sustainable after graduating from the Incubation programmes (Kinoti & Struwig, 2011).

Recognising these gaps, the present study aims to improve understanding and foster entrepreneurial culture, particularly among the youth. For policy makers, the study draws attention to the growing importance of follow-up support services to help graduates of incubation programmes cope with the increasingly complex nature of the knowledge-driven digital economy. For programme officials, incubators, and beneficiary SMMEs, the study draws attention to the need for strengthening and improving the knowledge and skills of managers and coordinators of business incubation programmes.

## **1.11 Chapter outline**

### **Chapter One: Introduction**

This chapter places the inquiry in its context by explaining its motivation and underlying objectives regarding the perceptions of Incubatees and Graduates towards the Chemin Incubation Programme. It also indicates the possible ways in which the study contributes to entrepreneurship theory and incubation practice is provided.

### **Chapter Two: Literature Review**

A critical examination of literature and related empirical research on business incubation is done to broaden understanding of the issue under investigation. The remainder of chapter two highlights the underpinning theories that subsequently informed data analysis in later chapters of this dissertation.

### **Chapter Three: Research methodology**

Underpinned by qualitative research principles, this chapter outlines the methodological framework that was utilised to facilitate data gathering and interpretation of results. The case study design, purposive sampling and semi-structured interviews are explained and justified. The chapter ends with discussion of the strategies employed to enhance the quality of the study.

### **Chapter Four: Presentation of Results**

Using thick descriptions and illustrations, the main research findings on the perceptions of Chemin Incubatees and Graduates towards incubation services are explained orderly as per the research questions. Throughout the presentation, the perceptual similarities and differences between Incubatees and Graduates are highlighted and explained to enhance understanding of what Incubatees and Graduates thought about the value of the services they received from their incubation centre.

## **Chapter Five: Discussion of Results**

A qualitative perspective of the results is provided through a thematic analysis framework. The analysis seeks to establish how incubates and Graduates feel about the business incubation services that they receive from Chemin as well as their role in helping government tackle poverty and unemployment.

### **1.12 Conclusion**

Chapter one sets the scene for the study, detailing its context, purpose, significance and intended outcomes. As noted, this investigation is necessitated by scarcity of exhaustive data relating to perceptions of Incubatees and Graduates on the specific types of services that they receive from the incubation centre, as well as their experiences on whether the services received met the development needs of their businesses. The following chapter looks at business incubation literature, as well as the specific theories that were used to analyse data in later parts of this presentation.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

Chapter two examines current literature and relevant empirical research that has been conducted on business incubation here and abroad. The overall aim is to broaden understanding of how beneficiary SMMEs experience incubation services rendered by their mentors generally and in the study setting particularly. The review will also assist with the identification of potential areas for knowledge creation.

The review looks at the general perceptions of Incubatees and Graduates towards business incubation, as per the research questions, namely: Why do Incubatees join incubation programmes? What is the perception towards business incubation of Chemin Incubatees and Graduates from Chemin Incubation Programme? What are the understandings of Incubatees and Graduates about government's goal of funding business incubation initiatives? The review also highlights common incubation models, underpinning theories, as well as current studies on business incubation practice and the resultant knowledge gaps that the current study aims to tackle.

The following data sources were used to facilitate the review: Published articles from various databases like Google scholar, Ebcost and Emerald Insight, various business journals and official annual and financial reports, DTI, SEDA and Chemin websites and Internet sources like Google and Bing for secondary data. The key words were Business Incubation, Business Incubators, Incubatees perception, SMME's, Chemin, jobs creation and economic growth. The academically literature reviewed included sources from peer reviewed journals, official reports and publications. Most of the literature reviewed is material dated from 2010 to 2020.

Extant research (Ranyane, 2014; Ryan, 2017; Bhorat, 2018 and Mpe, 2018) reveals that many promising start-up businesses in SA remain in the survivalist stage with limited prospects for growth and sustainability partly due to insufficiency of support services. Consequently, many of these ventures contribute very little to job creation and income generating activities in the mainstream economy (Kavhumbura, 2014 and Iwu, 2016).

## **2.2 Clarification of key concepts**

### **2.2.1 Business incubation**

In the context of entrepreneurship, the word “incubate” means keeping something safe and warm so that it has time to grow. A plan, idea too is powerful when it is carefully drawn from a warm, clean environment and helps with growth stages (Dictionary, 2016). A substantial body of research (Graham, 2010; Muyengwa, Dube, Battle and Masinga, 2012; Tembe, 2018 Bushe, 2019 and Schutte and Direng, 2019) affirm that effective business incubation inspires entrepreneurial activity, which in turn increases economic gains for consumers and society. Well-conceived incubation initiatives are an important tool for promoting peer learning and technology sharing between incubators and incubated SMMEs (Kasase, 2017).

### **2.2.2 Empirical definitions of business incubation**

Though scholars have not reached convergence on the nature and meaning of business incubation, several definitions can be identified which provides salient insights on the interpretation and implications of this concept (Blok, Thijssen & Pascucci, 2017: 3). The following definitions and their different emphasis are considered and the preferred definition that aligns with the objective of the study is subsequently explained and justified.

Table 2.1 Definitions of business incubation

Author	Definition
<b>Cullen, Calitz &amp; Chandler (2014)</b>	a business development process that is used to grow successful, sustainable entrepreneurial ventures that will contribute to the health and wealth of local, regional and national economies by providing a platform for businesses to build their foundations.
<b>Nair &amp; Blomquist (2018, p.39)</b>	a process aimed at facilitating the entrepreneurial process by providing well-developed technological and business infrastructure, business support services and networking.
<b>Sahay &amp; Sharma (2009) in Lose 2021, p.2)</b>	efforts to accelerate the successful development of entrepreneurial enterprises through the provision of business support in the form of resources, services and business network contacts.
<b>Tembe &amp; Galawe (2018, p.4)</b>	all activities aimed at equipping SMMEs with the necessary skills needed to grow sustainable business and create jobs, by providing business development and training support services, creates linkages and networks, and provides infrastructure support services to SMMEs
<b>Lose &amp; Tengeh (2018, p.1)</b>	an organisation that facilitates and provides a protected environment to new, early stage and existing businesses by providing a comprehensive range of shared services and enterprise development assistance.
<b>Patton (2014, p.901)</b>	a physical site where less tangible but critical business resources are concentrated and made accessible to new venture owners for exploitation, including advice and support of advisers, investors, venture capital fund, business networks and intellectual property experts.

What is common across all these five definitions is that business incubation is aimed at acceleration, empowerment and growth of small businesses through resource mobilisation, multi-skilling, and exposure to vital business networking opportunities. Of these five definitions, the study aligns with the last definition by Patton (2014) which recognises the integrated nature of incubation services. This definition provides useful concepts that can be used to compare and contrast the perceptions of Incubatees and graduates towards the Chemin Incubation Programme, such as resources, social capital, knowledge resources and business sustainability. We strive to consider business incubation from a value creation

perspective since the basic function of incubation is to help create value for new ventures and their stakeholders (Hughes et al., 2007).

Given the intense level of competition and continued SMME failures, incubators can significantly reduce the vulnerability of start-ups by offering a secure and stable environment where the owners can learn and adapt quickly while gaining essential business skills and experience (Buys and Mbewana, 2007b). Rather than focus on technology-based SMMEs, incubators provide much needed assistance to different types of ventures in various industries to help them become sustainable (Petersen, 2015 and Berendsen and Beckett, 2018).

One of the most salient responsibilities of business incubators is to formalise and systematise the operations of start-up ventures by offering different kinds of support services, including administrative support; provisional office facilities; personalised business counselling; market research; business networking, business management skills, technical support, technology development opportunities and referrals to enable Incubatees build new relationships that could grow and expand their businesses in future (Rizzi, 2017). Hausberg and Korreck (2020) say that incubators provide critical support that stabilises new ventures; including affordable business infrastructure, resources and marketing opportunities for a particular period, for example, 3 to 5 years. Incubation services may be provided on the incubator's premises or in a dedicated centre or business hub (Voisey, et al., 2006).

### **2.2.2.1 Evolution of business incubation**

Business incubation as both a concept and process has evolved and grown tremendously over the years (Ganamotse, Samuelsson, Abankwah, Anthony & Mphela, 2017). As indicated in figure 2.1, the first, second and third generation incubators emerged around the 1980s, 1990s and early 2000s respectively (Bliemel et al., 2016). Business acceleration programmes have been placed within the third generation of business incubators).

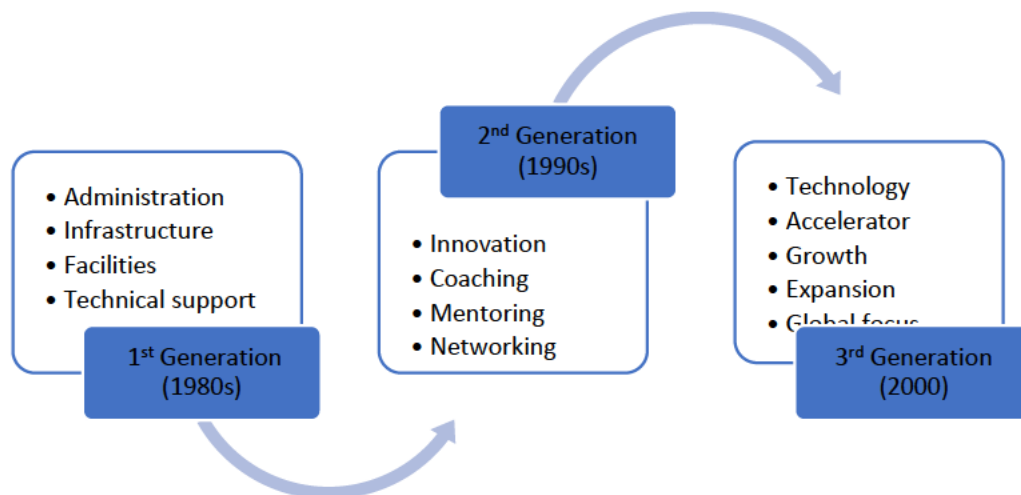


Figure 2.1 The four generations of business incubation  
Source: Adapted from Indiran et al. 2017

Third generation business incubators, which emerged in the late 2000, emphasise access to knowledge and resources through networks and internal cooperation amongst the firms within the business accelerator. This contrasts sharply with the first generation business incubators, which emphasise real assets and second generation incubators, which focus on technology businesses, respectively. Business accelerators are more profit seeking in nature (Isabelle & Westerlund, 2016). While there is a considerable history of research on incubators, literature appears to remain fragmented and incubators have long been studied mostly as a peculiar phenomenon in a variety of closely related research streams, above all urban and economic development and university-industry technology transfer (Hausberg & Korreck, 2020:152). “By providing a ‘one-stop’ service, incubation significantly reduces overhead costs by sharing facilities and improves the survival and growth prospects of start-ups and small firms at the early stage of business development” (Indiran, Khalifah & Ismail, 2017:473). The study aligns more with the 3rd generation of business incubation models as it reflects the integrative and multi-level approach adopted by the Chemin Business Incubation in addressing the needs of Incubatees and graduates. The integrated nature of the Programme ensures that budding entrepreneurs and graduates find all important start-up support services under one roof.

### 2.2.3 Business Incubatees

Incubatees are clients, tenants or companies, provided with strategic, value adding business development support and technical support by the Business Incubator over a specific time period (Ntlamelle, 2015).

#### **2.2.4 Entrepreneurship**

Entrepreneurship entails identification of innovative ideas that may be optimised to generate wealth for the entrepreneur and society at large. Entrepreneurs are creative, action orientated individuals who stop at nothing until the product or service is turned into a reality that creates wealth in return (Lalkaka, 2001). Through the opportunity recognition process, SMME owners are able to learn and develop an understanding of the specific products and services that their target markets need through creativity and innovation; proactive thinking and strong risk-tolerance capabilities (Gonthier and Chirita, 2019). An entrepreneur's decision to embark on venture creation stems from the desire to create ground-breaking solutions not just for the business world but also for local communities and society (Krige, 2018). The entrepreneurial mindset encourages risk-taking and frequent experimentation with ideas; which leads to the creation of value adding products and services for consumers (Neneh, 2012 & Pollard and Wilson, 2014). Incubation is therefore critical in ensuring that Incubatees and Graduates have easy access vital resources and professional support to help them realise their entrepreneurial goals.

#### **2.2.5 Incubation Graduates**

In the world of business, Graduates are generally described as companies that have graduated from the incubator programme; usually over a 3-5 year period. The present study looks at the perceptions of Incubatees towards the services that the incubator provides and whether these services add any real value to their companies.

#### **2.2.6 Small Micro and Medium Enterprises**

Within the South African context, SMMEs are generally defined as registered small businesses employing not more than 250 employees with an annual turnover between R5 million and R10 million (Wholesale & Retail Seta, 2014 and Ntlamelle, 2015).

#### **2.2.7 Perceptions and attitudes**

Perception as a concept denotes the manner in which a particular issue, situation or reality is apprehended or conceived by an individual or persons in a given context. It is the process through which individuals and groups form and attach meaning to reality based on their prior

experience (Pickens, 2005). Put differently, perceptions define how people see and interpret the world before them (McDonald, 2012). Also aligned to perceptions are attitudes which explain the way in which people respond to certain situations based on their cultural beliefs or their own preconceived ideas about those situations. Attitudes manifest the “positive and negative outcomes that people associate with a particular issue” (Argyriou and Melewar, 2011). To illustrate, this study holds that an inductive analysis of Participants’ attitudes may help explain how they feel about the incubation services rendered by their Incubator in the chemical industry. While not based on accurate, adequate and reliable information, perceptions generally influence and guide human behaviour (Business Dictionary.Com, 2016).

### **2.2.8 Incubatees and Graduates perceptions on Business Incubation**

A study conducted in Kenya, a country that started business incubation in 1967 revealed that even though the entrepreneur feels that the incubator services are important to their businesses, it still falls short of their expectations. The Incubatees felt that they received less support than they had requested and deserved, because the incubators were busy focusing on their own profit margin (Struwig, 2011), whereas the Incubatees in the United Kingdom believe that no matter what the economic conditions of the country looks like or how small the profit margin of the incubator, the incubator should provide affordable office space and all expected in-house and external support (Theodorakopoulos et al., 2014). Lose and Tengeh (2015) states Incubatees stated that the Incubator staff lack entrepreneurial skills and sustainability of the incubator itself affects the support expected.

### **2.2.9 Value add of the Business Incubator support services**

Is the support provided by business incubators sufficient to enable SMMEs and government to reduce unemployment, slow economic growth and inequality? A study conducted by (Ntlamelle, 2015) revealed that when evaluating the value adds of different business incubators across different industries, it was found to be similar and in place. The services looked at were categorised around infrastructure, operations management, technology and relationships building. Incubation management practice dictates that incubators should be able to give diversified service packages to incubated SMMEs; for instance, relationships management, ongoing professional counselling; business networking opportunities; and

preparing them for senior business leadership roles (Theodorakopoulos et al., 2014). In addition to these services, host companies should also be able to help Incubatees with venture capital and risk management services (Buys and Mbewana, 2007a).

### **2.2.10 The role of Incubated SMMEs in the economy**

Do Incubatees and Graduates understand their role in working with government towards addressing unemployment, economic growth and inequality issues in South Africa? Globally there should be a common and mutual understanding between SMME's and government. The understanding should be that the goal is common. The government is investing towards the general wellbeing of SMME's, the SMME's should pull towards the same goal rather than treating the government support as an entitlement (Alsheikh, 2009). In ad hoc discussion with Incubatees from one of the Durban Business Incubator, Incubatees only cares about their personal wealth creation and their families' wellbeing. This has been the same feeling shared by the manager of the Jewellery Incubator based in Johannesburg; some of the Incubatees have been offered ways that can help grow their companies such as equity so that companies do not become one man show but rather grow and create employment.

In other countries the feeling of the Incubatees has been that they rather remain small and keep it in the family (Dam, 2011). As much as South Africa has slowed economic growth both government and SMME's especially those that receive support from Business Incubators should have a positive attitude towards creating jobs thus alleviating poverty. However, research shows that entrepreneurial activity contracted between 2014 and 2015. For example, only 20 per cent of SMMEs saw improvement in their turnover during this period; while 56% registered an aggregate annual increase from 9 per cent to 11 per cent in 2012-2015 (Alert, 2015). To some extent, this shows that many SMME are struggling to achieve sustainable growth that is needed to generate more jobs and bring relief to millions who do not have income to live on; hence the understand the perceptions of Incubatees and Graduates towards business incubation in the chemical industry.

### **2.2.11 Sustainability of the Business Incubators**

Do Incubatees understand their role towards the wellbeing and sustainability of the Business Incubators they are part of during incubation and after? In the two studies conducted in South Africa, Cape Town and Western Cape (Lose and Tengeh, 2015 and Lose, 2016), it has been found that many incubators are struggling to provide adequate incubation services due to unsustainability of their operations and their inability to achieve the performance targets set by the STP; some of which include job opportunities provided; actual turnover reported; trainees successfully mentored; client growth, training rendered; etc. The success of incubated firms hinges largely continuity and dependability of incubators; which means that self-sustaining business incubation models are needed to reduce dependence on governmental support (Buys and Mbewana, 2007b). The level of motivation and commitment among prospective Incubatees is another important factor that determines success and viability of incubation services. Incubatees have to own the learning process rather than depend entirely on the incubator for assistance. According to the INBIA (2016) graduated Incubatees have a duty to give back to the community and/or the Business Incubator they graduated from if there is a need. The give back could be in any form, volunteer to assist exiting Incubatees with technical or business support, payment of the Business Incubator operational bills like electricity and water, joint venture with existing Incubatees in projects in order to increase their turnover. The next section reviews current incubation models and highlights their relevance to the study.

### **2.3 Types of business incubation programmes**

In recent years, incubators have sought to formalise their service packages to attract donations and to match the expectations and entrepreneurial goals of Incubatees . Once formalised, incubation programmes provide different forms of support to enhance growth, performance and survival of SMMEs in the long term. Their main objective is providing learning and growth opportunities while strengthening the entrepreneurial capabilities of Incubatees to compete effectively in their chosen markets (Salem, 2014). Several researchers (Kemp, 2013 and Kasase, 2017, and Schutte, 2019) have documented the different types of incubation programmes rendered to SMMEs. Prime examples include the following:

**Table 2.2 Different types of incubation programmes**

Type of programme	Description
Strategic management	These are high level services aimed at building the strategic thinking capabilities of the managers of new SMMEs so as to
Operational services	These services focus on product design, development, production planning and
Financial services	Accounting, Bookkeeping, auditing basics, financial reporting, budgeting, sales forecasts,
Marketing services	Market analysis, customer data base management, customer service policy,
Information technology	These include access to internet and email facilities, software, hardware and related
Business management	Professional running of the business; professional interactions with clients and
Research and Development	Creativity and innovation Joint ventures Technology-sharing

The ability of an incubation programme to respond appropriately and timeously to the needs and expectations of the intended audience is an important consideration in both the design and delivery of incubation initiatives. Tarrant (2014) emphasises that programme responsiveness demonstrates an organisation's resolve to consistently provide high quality incubation services to its clients. Incubation staff needs to ensure that the services provided to clients are dependable, adequate, relevant and consistent across the customer groups. These principles also apply to providers of incubation services at Chemin.

Supporting the above view, Hausberg and Korreck (2018) argues that the effectiveness and efficiency of an incubation programme hinges largely on firstly, on the ability of the incubation teams to provide sound leadership and quality services to the Incubatees in ways that inspire entrepreneurial flair. Secondly, the qualities of the entrepreneurs receiving the incubation services also count especially self-motivation and the desire to learn and grow as an entrepreneur. Thirdly, the success of incubation also hinges on the commitment and contribution of all key stakeholders, including funders, business partners, host companies and relevant government agencies. The stakeholder community should be able to come with a common vision and enabling environment that helps SMMEs to thrive and prosper.

## 2.4 Business incubation models

Business incubation researchers have identified several models that are typically used to nurture and grow budding entrepreneurs, including those under study. Examples that are pertinent to this research include: Value based incubation; criterion based and innovation-based incubation models. These models are important in helping to understand the perceptions of Incubatees within the Chemin Incubator Programme. The strengths and weaknesses and inherent gaps of each one of these models are mentioned below.

**Table 2.3 Business incubation models**

Incubation model	Emphasis	Strengths	Weaknesses
Value-based incubation model (Campbell, Kendrick and Samuelson, 1985)	<ul style="list-style-type: none"> <li>□ Proper diagnosis of Incubatees' business needs; skills levels, and funding requirements</li> <li>□ Identify suitable services for the incubate and how often these should be given to them</li> <li>□ Reasonable capital investments to stimulate SMME growth and business networking</li> </ul>	<ul style="list-style-type: none"> <li>□ Offers a holistic approach to business incubation</li> <li>□ Calls for a thorough needs analysis process to ensure that all the business needs of the new venture are identified in advance</li> <li>□ Seeks to address all aspects of the Incubatees, including financial and technical needs</li> </ul>	<ul style="list-style-type: none"> <li>□ Assumes that all new ventures are stable and follow the same growth trajectory</li> <li>□ Fails to consider the limited resource capabilities of new ventures in disadvantaged communities</li> <li>□ Does not provide a specific selection criterion for selecting Incubatees</li> </ul>
The criterion-based approach (Merrified (1987)	<p>Suggests three criteria for identifying and selecting Incubatees</p> <ul style="list-style-type: none"> <li>□ the feasibility of the entrepreneur's business idea;</li> <li>□ resources and competencies;</li> <li>□ Market penetration strategy.</li> </ul>	<ul style="list-style-type: none"> <li>□ Highlights the need for understanding the capabilities of Incubatees prior to joining the incubation programme</li> <li>□ Incubatees should be given services that match and nurture their capabilities</li> </ul>	<ul style="list-style-type: none"> <li>□ Favours privileged entrepreneurs with strong educational background</li> <li>□ May exclude new ventures in disadvantaged communities facing severe resource constraints, poverty and unemployment.</li> </ul>
Innovation-based model (Corradi, 2013)	<ul style="list-style-type: none"> <li>□ Access to technology, resources and</li> </ul>	<ul style="list-style-type: none"> <li>□ Promotes creativity and innovation which is key to growth,</li> </ul>	<ul style="list-style-type: none"> <li>□ Access to technology is not always easy for</li> </ul>

	<p>opportunities for co-creation of new products and technology transfer</p> <ul style="list-style-type: none"> <li>□ Continuous learning to acquire new knowledge and skills;</li> </ul>	<p>success and survival of new ventures</p> <ul style="list-style-type: none"> <li>□ Stresses the need for Incubatees to learn and adapt quickly to rapid technological change in their industries</li> </ul>	<p>many start-up ventures in disadvantaged communities</p> <ul style="list-style-type: none"> <li>□ Technology sharing arrangements are very limited in industries with high levels of competition</li> </ul>
--	---	---	---

Despite differences in scope and emphasis, these business models provide valuable insights into how Incubatees are identified, recruited and assisted within the incubation environment. While the value-based model underlines the importance of capability analysis prior to the incubation process; the criterion-based model stresses the need for assessing the competencies of the entrepreneur, namely attitudes, skills and behaviours. Innovation based models highlight the need for instilling a culture of creativity and innovation among Incubatees. These issues are important for the study as it seeks to understand the perceptions of Incubatees and Graduates towards the Chemin Incubation Programme.

## 2.5 Underpinning theory

This study uses these three theories as an analytic lens to determine the perceptions of Incubatees and Graduates towards the Chemin Incubation Programme. Discussion of these approaches and their relation to the research follows.

### 2.5.1 The Knowledge-based view (KBV)

In today's digitally-oriented economy, knowledge becomes a critical strategic resource that incubated firms need to improve their operations and gain competitive advantage in their chosen industries (Eveleens, 2017). Incubatees acquire knowledge through knowledge sharing systems with host entities and through peer-to-peer learning activities (Xu, 2014 and Schepers, 2019). Since many incubated firms generally have limited knowledge capabilities, business incubation provides the most viable option for emerging firms to obtain knowledge to bolster their performance and growth prospects (Kaplan, 2001).

The need for knowledge is imperative as SMMEs in developing countries face severe global competition. To survive and prosper, young firms need to continuously leverage their internally-embedded knowledge to serve their markets better (Randall, 2013). With knowledge increasingly becoming a catalyst for both business renewal and competitive

advantage, it is vital for incubated SMMEs to strategically apply their knowledge resources in order to ignite creativity, innovation and opportunity recognition processes (Bins wad, 2017); which are key to successful design of new products and services across industries, including the chemical sector.

Significant improvements in Information and Communications Technology (ICT) and tough global competition exerts pressure on both established and emerging businesses to mobilise and leverage their knowledge resources for growth. With limited market intelligence capabilities, incubated SMMEs are forced to seek opportunities for knowledge sharing, including peer-to-peer learning systems; membership of industrial associations; cross-functional team collaborations; co-design arrangements; and joint research and innovation projects (Low and Yen-Chen Ho, 2015). As a driver of firm growth, market expansion and competitiveness, knowledge is acquired through learning from mistakes, and tolerance for errors which helps fuel innovation in the new venture (Lumpkin, 2005). Explorative learning in particular helps Incubatees to experiment with ideas, develop new products; identify new opportunities and to find new markets for their products (Wang and Chugh, 2014). Table 2.4 summarises the different forms of learning linked to incubated firms.

**Table 2.4 Types of learning linked to incubation**

Type of learning	Description
Behavioural learning	aims to bring about change in old and current business structures, systems, processes and practices as the firm responds to its own experience and those of its competitors. Perceived gaps in performance calls for review and adaptation of business practices.
Cognitive learning	is concerned with how knowledge is produced, shared and leveraged to enhance service standards and the innovation capabilities of the firm
Action learning	real-time corrective measures to correct discrepancies in quality of products and services and the entire value chain. It occurs at both individual and organisational levels – reframing and realignment.

Source: Adapted from Lumpkin (2005:453-455)

Central to the notion of knowledge as a strategic asset is the need to provide incubated SMMEs with integrated learning opportunities that (a) encourage and support experimentation with new ideas among Incubatees and (b) use incentives to embed and sustain a strong culture of innovation in each incubated venture.

However, diffusion of knowledge in SMMEs is often retarded by the owner's inability to effectively share critical knowledge to aid marketing decisions, competitive analysis and more importantly, to enhance the firm's competitive advantage through creativity and innovation (Alawneh, 2009). Not only does inadequate sharing of knowledge deprives managers and employees of the opportunity to improve product quality but also limits understanding of how quickly customer needs and expectations change in the market (Uze, 2013 and Gwena and Chinyamurundi, 2018). The highly competitive digital economy exert pressure on SMMEs to continuously decode and convert their tacit knowledge into meaningful and purposeful information that their teams can use to detect and respond swiftly to rapid technological change and new opportunities in their industries (Tseka, 2018). Meanwhile, Mason and Arshed (2013) emphasise the importance of experiential learning in helping emerging entrepreneurs to gain practical business experience and exposure to their chosen industries. Learning by doing constitutes the most effective strategy for inculcating and strengthening an entrepreneurial culture among budding entrepreneurs (Copley, 2011).

## **2.5.2 The Resource based view (RBV)**

Embracing entrepreneurship development, this theory posits that incubation efforts should focus on building and strengthening Incubatees' resource capabilities. These include (Lin, Wood and Lu, 2012) both tangible resources (human capital, infrastructure, equipment and technology) and intangible resources (brand reputation, goodwill and trade secrets). Consistent supply of resources enables an organisation to implement its business strategy in ways that maximise growth and customer value. While tangible assets foster productivity, intangible assets are critical in driving creativity and innovation in the company's value chain (Barney, Ketchen and Wright, 2011).

By providing solid resource networks, the incubator places the incubatee in a favourable position to gain access to knowledge resources and growth opportunities. Resource networks connects the new venture to other Incubatees within and outside the incubation environment; thus, providing an ideal opportunity for young entrepreneurs to collaborate and learn from each other (Kellermanns, 2016). Effective mobilisation and deployment of

resources helps a firm to improve its competitive advantage and to deal with perceived threats in its business environment. To succeed, the new venture needs to be assisted to effectively utilise and manage its resources throughout the business life cycle; for example, infant stage, growth stage, maturity stage and turnaround stage (Gassmann and Becker, 2006).

Essentially, the RBV enables understanding of how sufficient or inconsistent supply of resources affects productivity and ultimately, the performance, growth and viability of start-up firms within and outside incubation settings. Rapid advancements in digital technology have brought unprecedented changes in the entrepreneurial environment, opening up opportunities for creativity and innovation and adoption of digitally-oriented business processes and practices (Ngoasong, 2015). Likewise, Incubatees need to be technologically literate and competent in various aspects of digital technology to be able to survive and prosper in the chemical industry.

### **2.5.3 The Social Network Theory**

According to this theory, effective business networking and meaningful social interactions creates vital social capital that young, inexperienced entrepreneurs need to grow and sustain their ventures (Patterson, 2015). Exposure to well-established business networks improves the young entrepreneur's learning experience by facilitating resource sharing and co-production of goods and services. A business network comprises nodes and ties. While nodes involve a series of multilevel networks of firms, groups, individuals and organisations accessible to the incubatee, ties denote the cooperative and reciprocal relationships that facilitate sharing of ideas, information and technology within the value chain (Eveleens, Van Rijnsoever and Niesten, 2017). Not only do these ties bring marketing, sourcing and contracting opportunities closer to the incubatee but also create a platform for shared learning; mutual support and joint problem-solving (Karami and Tang, 2019). A vital aspect of this theory that reinforces this research is that social capital may help Incubatees build and sustain their brands beyond incubation settings.

## **2.5.4 Relevance to the study**

All three theories have a direct bearing on the development needs of Incubatees within the Chemin environment. While the OL theory sees learning as an essential ingredient in knowledge creation and accumulation for Incubatees, the RBV underscores the critical role that resources play in improving and strengthening the capabilities of these entrepreneurs, particularly in the infant stage. Equally social network theory underlines the need for Incubatees to be empowered with solid business networking skills so that they may be able to locate and leverage new opportunities to expand the scope of their marketing activities.

## **2.6 Empirical review and knowledge gaps**

### **2.6.1 Empirical studies**

Several studies have been carried out to explain business incubation initiatives and their outcomes; as well as the experiences of those at the receiving end of these interventions (Allahar, 2016; Lose, 2016, and Rizz, 2017). Harper-Anderson and Lewis (2017) examined the quality of services that host companies provided and their impact on incubatee prosperity. To do this, the study surveyed line managers directly responsible for grooming Incubatees. Crucially, this study observed that quality, or lack thereof, had a direct influence on the outcomes of incubation programmes in all the cases observed; suggesting that high quality services helped prepare Incubatees for success in main markets. Based on these results, Harper-Anderson and Lewis (2017) concluded that improved service quality may help mitigate the failure of start-up businesses by encouraging a culture of innovation and continuous improvement. In contrast to the current study which uses a qualitative approach and case study design, Harper-Anderson and Lewis (2017) employed survey design which is generally associated with quantitative research. As regards the variables studied, the current study was more focused on perceptions rather than the quality of business incubation programmes.

Focusing on the quality of incubator services in Northern Cape Province, South Africa, Van Spuy (2017) compared local business incubation models against international best practices to determine their effectiveness in meeting the needs of Incubatees. Following qualitative research Van Spuy (2017) interviewed 63 sources. In his

analysis, Van Spuy (2017) noted that four of the seven incubators did not meet the minimum quality standards generally expected of all business incubators. Only one business incubator was able to provide high quality services that met international standards. While service standards are also important in the current study, however, the two studies differ in terms of sampling strategy as the former used purposive sampling rather than criterion sampling which guided the current study.

Based on in-depth interviews, observation and literature review, Klaas (2018) examined business incubation process and practices to determine their suitability and impact on beneficiary SMMEs. The sample comprised 5 incubation experts and 2 highly successful SMMEs in Thailand. The results revealed that business incubation services were provided before, during and after exit from the incubator's facilities. While pre-incubation services helped build team capabilities, incubation and post-incubation services targeted business networking skills, mentoring competencies and marketing needs of start-up ventures. Like Van Spuy (2017), this study highlights the importance of service quality in facilitating growth and sustainability of budding entrepreneurs. The current study is more interested in understanding how Incubatees and Graduates felt about the incubation experience rather than programme activities.

Lose (2016) looked at how incubation influences SME growth in Western Cape Province. Making use of quantitative research along with random sampling and questionnaires, Lose (2016) noted that Incubatees who had received adequate support from their host companies contributed significantly to job creation; with staff numbers ranging from 1 to 15 employees. In addition, half of the Incubatees surveyed confirmed that incubation enabled them to create job opportunities for their communities. As can be seen from these results, this research used statistical analysis techniques, which are not consistent with the qualitative approach adopted by the present study.

Tengeh and Choto (2015) used mixed methods research to examine the relationship between incubators and Incubatees. It was established that 55 per cent of survivalist ventures that received incubation services were more likely to succeed than those that did have access to these services. Only 44 percent of the surveyed entrepreneurs did not benefit from incubation. This was attributed largely to financial constraints; limited support from stakeholders and lack of commitment from host companies to provide

adequate incubation services to beneficiaries. Although the study delves into the experiences of Incubatees, however, it differs from the current study in terms of research design as it relied on mixed methods research while the current study uses a qualitative approach. In addition, while Tengeh and Choto (2015) reduced their analysis to survivalist entrepreneurs in incubation programmes, the current study has a much broader scope in that it looks at small, micro and medium enterprises (SMMEs); thus offering multiple perspectives on how Incubatees and Graduates feel about business incubation services in the case study organisation. Another difference between the two studies lies in the sampling strategies used. Whereas the study under review used snowball sampling, the current study adopted criterion sampling where Participants were chosen on the basis of their familiarity with the Chemin Incubation Programme.

In a comparative study, Allahar (2016) examined the role of incubators in promoting small business activity in Brazil, Chile and Trinidad and Tobago. Methodologically, this research made use of qualitative methods comprising interviews and document reviews; which are almost similar to the current study. This research established that while there were challenges in resources and infrastructure, the majority of the Incubatees affirmed that incubation services assisted them to remain innovative and competitive in their markets. The study concluded that incubation teams should have a clear understanding of the learning and development priorities of Incubatees and ensure that SMME support services focus on developing the innovation capabilities of these entrepreneurs. As can be seen from this analysis, this research used a single variable (innovation capabilities) to understand business incubation as a tool to stimulate SMME growth. By contrast, the current study focused on perceptions of Incubatees about business incubation as well as their socio-economic role beyond the incubation programme; thus, offering a more comprehensive analysis of the research phenomenon.

Following a descriptive case study design within the qualitative approach, Rizzi (2017) analysed the significance of incubation services in propelling and keeping newly formed ventures afloat. Like the current study, Rizzi (2017)'s sample included both current Incubatees and Graduates. However, the two studies differ in terms of data gathering instruments; for instance, while the former elicited data through questionnaires, the current study generated qualitative evidence through the interview

technique. Rizz (2017) noted that Incubatees were very receptive of incubation services; confirming the efficacy of these interventions in fuelling growth and improving market accessibility for emerging ventures. The study concluded that it is critically important for incubators to offer adequate resources and infrastructure to ensure survival of new ventures beyond the incubation programme. Constant and equitable provision of resources to Incubatees is critical in the current study given the multiple obstacles that start-up ventures encounter in South Africa.

Relying on systematic literature review, Hackett and Dilts (2004:74) analysed 35 articles from both empirical and non-empirical studies and concluded that upon going through an incubation process, incubated businesses demonstrated the following outcomes: The incubatee is surviving and growing profitability; The incubatee is surviving and growing and is on a path toward profitability; the incubatee is surviving but is not growing and is not profitable or is only marginally profitable; Incubatee operations were terminated while still in the incubator, but losses were minimised; Incubatee operations were terminated while still in the incubator resulted in heavy losses

Ndlovu & Murimba (2018) assessed the impact of ED of Enterprise Development initiatives given to South African Small, Medium, Micro Enterprises by large corporates, particularly in the Sector of Mining, Construction and Finance to determine the extent to these interventions enhances the performance of SMMEs in construction sector. The research design was a cross-sectional study using the survey method. The positivist paradigm and empirical approach were followed in this study. This resulted in quantitative data being collected to test the hypotheses that were formulated from the theory. The researcher assumed that there would be a positive relationship between the independent variables and the dependent variable hence the positivist approach. Findings of the research were that there is a positive and significant relationship between ED nonmonetary initiatives and SMMEs growth, monetary Initiatives and SMME growth.

### **2.6.2 Knowledge gaps**

Reflecting on the preceding literature, it would seem that that extant research is mainly confined to only select aspects of business incubation, such as the mandatory responsibilities of the incubator, key success factors, different types of incubation programmes, and the relationship between the Incubator and Incubatees. Current research

falls short of explaining how the provision of support services enhances sustainability of entrepreneurial activities beyond incubation (Ahmad & Thornberry, 2016, p.5). Studies evaluating the effectiveness of business incubation have not been able to provide plausible explanations of how these programmes benefit current Incubatees and graduates of such programmes. “Of great concern is that the South African SMME economy continues to experience high mortality rates such that it is failing to grow sufficiently to generate much-needed employment opportunities” (Rogerson, 2017, p.1-2).

Many of the studies on business incubation focus primarily on what transpires once Incubatees have been admitted into the incubation process, rather than the post-incubation period, which ultimately determines business success (Sehitoglu & Ozdemir, 2013, p.173). None of the studies reviewed offer detailed accounts of what current and past Incubatees experience when they are subjected to an incubation programme; particularly in government-led incubation schemes. There is limited systematic investigation into the performance of business incubators in terms of globally recognised incubator standards (Cullen, Calitz & Chandler, 2014). South Africa’s business incubation system is relatively new and evolving (Lose et al 2016); making it difficult to predict the effectiveness of these institutional networks in meeting the needs of budding entrepreneurs and past beneficiaries. The current study departs from these empirical works by focusing on the perceptions of Incubatees and Graduates using a multidimensional analysis that depicts the perspectives of both current and former recipients of incubation services in the case study.

By using a case study approach, this research deepened understanding of how Incubatees and Graduates felt about the incubation services provided by their host company and how they perceived their role in helping government to alleviate poverty and unemployment. This way, entrepreneurship theory is enhanced by providing a micro and macro perspective of how incubation practice responds to client needs. The study also provides insight into how tailored learning and knowledge sharing system could improve functionality, competitiveness and longevity of newly established ventures in emerging economies.

## **2.7 Conclusion**

As highlighted above, prior research has raised questions towards the measurement of the incubator performance and research alludes to other facts like sustainability of business incubators. Not much empirical evidence is available to explain whether Incubatees and Graduates understand that their role is not just to generate revenue but also to assist government in dealing with jobless growth and skills deficiencies in the economy. It is this knowledge gap that differentiates the study from previous research efforts. Discussed next is research methods and field activities.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter demonstrates precisely how the qualitative research approach and case study analysis were employed in order to facilitate proper gathering and interpretation of primary data on the perceptions and attitudes about the services that Chemin rendered to their enterprises. Most importantly the measures that were used to address quality requirements and ethics are also described.

As argued previously, a key priority in this research was to find out how Incubatees and Graduates perceived the services rendered by their host company. In essence, the intention was to learn if Incubatees and Graduates understood their role towards what the government seeks to achieve by providing SMME's support by way of Business Incubation. Following is a description of the qualitative research practices and tools that were used to ensure that the research is properly executed.

#### **3.2 Research design**

As commonly described in literature, research design is the overall strategy for accomplishing research goals (Kothari, 2005 and Neuman, 2014). Embedded in design are the tools and guidelines for gathering and analysing data. Based on the qualitative approach, the researcher adopted semi-structured interviews and criterion sampling to learn how Incubatees and Graduates experienced incubation services from their host company. Citing Yin (2003), Basu and Biswas (2013) theorises case study research as:

*“An empirical method of analysis of a contemporary phenomenon within its real life context based on multiple sources of information, such as quantitative and qualitative sources.”*

Sutton (2015) indicates that qualitatively-oriented studies provide the means for researchers to comprehend the thoughts and feelings of the Participants as well as the underlying meanings attached to their experiences. With an integrated and evolving approach, qualitative research creates space for determining the research subjects' perceptions of the issue under investigation and their experience of it. The

emphasis on contextual factors is very important because it outlines the setting in which an intervention is being implemented (Anderson, 2010). The same could be said about the need to contextualise the perceptions of the Incubatees towards the Chemin Business Incubation Programme

### **3.2.1 Benefits of case study method**

Within the qualitative approach, application of case study methods has received acclaim from researchers and practitioners as an effective tool for distilling and comprehending complex real-world issues (William, 2007). Adoption of case study design in this research was particularly helpful in facilitating deeper and comprehensive analysis of Incubatees' perceptions of Chemin's incubation services. Since they permit close interactions between the research and the Participants, case studies enable intense collection of rich and context-specific data on the phenomenon under study (Karlsson, 2016). The embedded nature of the subcases (Chemin branches) enabled meaningful comparisons of the perceptions of the Participants across the chosen units of analysis (Gustafsson, 2017). Analysing similarities and differences between perceptions of Incubatees and Graduates may improve understanding of what SMMEs think about business incubation services; and which policy areas need improvement (Rodriguez, Hine, Hine, and Chavez, 2015).

### **3.2.2 Research Paradigm**

The study used interpretivism and inductive reasoning within the qualitative approach to understanding of the research problem as narrated by the Participants themselves (Goldkuhl, 2012). Interpretivism enabled a detailed and contextualised analysis of the research problem from the world view of the Participants (Eyisi, 2016). Understanding the context and the manner in which incubation services are provided to Incubatees and Graduates is imperative in this study, given the sustainability challenges facing budding entrepreneurs in South Africa; which undermine economic growth and job creation.

### **3.3. Data collection methods**

#### **3.3.1 Semi-structured interviews**

Pursuant to qualitative research, semi-structured interviews were employed to generate data on perceptions and attitude of Incubatees and Graduates towards Business Incubation at Chemin. Factors such as background information of the company, biographical information, experience and qualifications of the business owners and overall performance of the company were reflected in the interview schedule for both Incubatees and Graduates to achieve consistency. The interview schedule (Appendix 1) evaluated whether or not Participants knew what the government wanted to achieve through Business Incubation, and if they understood their role towards economic growth and towards the Business Incubator itself. The Interview Schedule consisted mainly of pen-ended questions to facilitate collection of rich and sufficient data from Incubatees and Graduates.

##### **3.3.1.1 Why semis-structured interviews?**

The interview as a qualitative data generation tool was preferred over other qualitative methods such as focus groups and observation because “open-ended questions and probes yield in-depth responses about people’s experiences, perceptions, opinions, feelings and knowledge” (Patton, 2002, p.4). Through semi-structured interviews, the author was able to critically evaluate the conversations and to verify the varied responses from the participants to derive multiple conclusions about the perceptions and attitudes of current and past graduates on the Chemin Business Incubation Programme. With a high focus on close interactions and open conversation, semi-structured interviews provides ample opportunities for qualitative researchers to follow up on unclear issues, probe hidden feelings, and extract knowledge from a diverse group of respondents (Ritchie & Lewis, 2003 in Kakila, 2021). The flexibility of interviews encourages participants to talk freely about their experiences of the phenomenon understudy; making it fairly easy for the researcher to extract rich data from the case study (Alamri, 2019, p.65-66).

### **3.4 Study area and target population**

#### **3.4.1 Population**

In research, a population is a well-defined universe bearing similar characteristics from which research Participants are selected (Hanlon and Larget, 2011). The sample is the subunit derived from the universe for data collection purposes and replication of the results (Materns, 2015). The population for this inquiry comprises chemical manufacturing SMMEs that derive incubation services from Chemin. The size of the potential population was 48 SMMEs scattered across 3 Chemin branches (40 Incubatees and 8 Graduates respectively). Of these, 12 participants were selected for consideration in the study.

#### **3.4.2 Sampling method and sample size**

The study employed purposive sampling to identify current Incubatees and graduates for analysis. Commonly described as judgment sampling, purposive sampling is “the deliberate choice of participants based on certain characteristics, such as experience, knowledge or familiarity with the phenomenon under study. It enables selection of information-rich cases for in-depth analysis and interpretation of the research problem (Benoot, Hannes & Bilsen, 2016). Purposive sampling can reveal people’s thoughts, words, values, mindsets, actions and interpretative schemes (Omona, 2013, p.172). In this study, it played a key role in understanding the attitudes and perceptions of current and past Incubatees in the Chemin Business Incubation Programme. Participants in this study were selected on the basis of experience and tenure i.e. those that were excluded are those that had spent less than three years in the incubation programme and those that graduated in no less than 3 years.

**Table 3.1 Sample size**

Category of Participants	Selection criteria	Number
Incubatees	<input type="checkbox"/> They have been with the Incubator for more than 18 months <input type="checkbox"/> They understand the nature and scope of current incubation services	7
Graduates	<input type="checkbox"/> They graduated in the past 3 years and have practical experience of the incubation programme <input type="checkbox"/> They understand the strengths and limitations of Incubation programme <input type="checkbox"/> They can explain the impact of the programme on their businesses	5
<b>Total</b>		<b>12 Participants</b>

Criterion sampling enabled selection of legitimate and reliable cases that provided rich information necessary to enable deep and meaningful analysis of the research topic (Onwuegbuzie and Collins, 2007). The following section explains why the principle of saturation was used to justify the sample.

### 3.4.3 Data saturation

The study employed the principle of saturation. Within the qualitative approach, saturation implies that on the basis of the data collected or analysed, further data gathering is unnecessary (Fusch and Ness, 2015 and Saunders, 2017). “It is the point at which no additional data are being found where the researcher can develop properties of the category” (Guest, Namey and Chen, 2020). Saturation was appropriate in the study as it aligns well with non-probability sampling methods, such as criterion sampling (Hennink and Kaiser, 2019).

### 3.4.4 Coding of the Participants

In presenting the data, proper care was given to naming of the Participants to ensure full protection of their personal lives and their businesses throughout the reporting process (Saunders, 2015). Sensitive and explicit information such as brand names, trademarks, location and physical addresses were accordingly concealed. The code names assigned to the two categories of respondents in the study were as follows:

**Table 3.2 Coding of the Participants**

Category 1: Incubatees	Category 2: Graduates
Participant 1A	Participant 2A
Participant 1B	Participant 2B
Participant 1C	Participant 2C
Participant 1D	Participant 2D
Participant 1E	Participant 2E
Participant 1F	
Participant 1G	

### 3.5 Pre-testing of the Interview Schedule

Establishing the effectiveness of a data collection tool beforehand is helpful in improving not just the quality of the questions asked but also the suitability and efficacy of the data collection tool itself (Hurst, 2015; Kin-Keam, 2015 and Majid, 2017). The aim of piloting the interview schedule was to learn whether the research questions reflected accurately and adequately what the researcher wanted to know about the target population (Agee, 2009). Figure 3.1 depicts the steps followed to pre-test the interview schedule prior to conducting the full study.



**Figure 3.1 Process followed to pilot the interview**

**Source: Adapted from Agee (2009)**

As this illustration shows, three Participants were identified to enable piloting of the interview schedule which was done in three stages (figure 3.1). These included 2 incubates and 1 graduate from the Chemin Incubation Programme. Pre-testing results were utilised to modify, format and simplify questions in the interview schedule to ensure that Participants provide correct answers to each of the questions asked (Collins, 2003 and Hurst, 2015).

### **3.6 Trustworthiness**

From a qualitative research perspective, trustworthiness means the rigour and robustness of the study in addressing the truth fairly and impartially (Creswell, 2003 and Heale and Twycross, 2015). Five quality criteria were used to improve trustworthiness in this study. The first involved credibility, which determines the congruence between findings and reality (Shenton, 2004, p.64). Strategies used to elevate credibility of the research included gaining access to the case study in order to gain familiarity with participants' culture and sourcing data from different informants i.e. current Incubatees and graduates to derive rich and varied perspectives about the research problem. Prior testing of the interview schedule enhanced data quality and credibility (Ntlamelle, 2015). Insights from the pre-test also enabled timely correction and paraphrasing of ambiguous questions, as well as elimination of incorrect items from the interview schedule. The interview schedule was refined and adapted to ensure that it aligns with the objectives of the study; problem statement and research questions. Transferability in the study was enhanced through thematic analysis which involved illuminating the analysis with thick descriptions of participants' experiences and providing meaning comparisons of data sets to derive similarities and contradictions on the research phenomenon.

Dependability /reliability was achieved by using case study design which enabled detailed comparative analysis of the attitudes and perceptions of participants on the Chemin Business Incubation Programme; and validating the data inputs from the Participants through debriefing (Noble and Smith, 2015). This process enabled the respondents to judge the quality and relevance of the questions contained in the guide and to suggest ways in which irrelevant and confusing questions could be improved. Data sources were triangulated to incorporate the views of current Incubatees and past Graduates to ensure that all perspectives are represented in the study. Collected data were also comparatively scrutinised in order to reduce errors and clutter (Bird, 2009). Confirmability was achieved by ensuring that the research findings accurately and adequately reflects the actual words, ideas and experiences of the participants rather than the preferences and potentially biased interpretations of the researcher.

### **3.6.1 Mitigating insider researcher bias**

While sound knowledge and familiarity with the incubator's environment, people and corporate culture played a much bigger role in improving the researcher's understanding of how Incubatees felt about incubation services, the possibility of bias and subjectivity was also pervasive at the same time (Fleming, 2018). Although being part of the Chemin team made it fairly easy to conceptualise the study within the chemical industry; however, certain issues proved difficult to deal with; such as avoiding the tendency to pre-empt responses and being aware of the tensions associated with being a researcher and academic in the same situation. Dealing with these challenges required application of different tactics, including continuous reflection on the research journal; debriefing; reminding Participants about the importance of the research for Chemin's incubation programme; my role as a student rather than an employee; and potential benefits of the research for the company – which depended on the quality of information that they would provide during interviews.

### **3.7 The data gathering process**

Data gathering can be accomplished in various ways (Struwig, 2011). Scheduling of interviews (Appendix 1) was done in two separate stages. The first stage of the interview focused on current Incubatees, gauging their perceptions to determine how they felt about the incubation programme. Their responses were captured separately in a note book to avoid conflation with Graduates' views. The second stage of the interview elucidated data from 5 Graduates who had already spent 3-5 years after existing the Chemin Incubation Programme. The emphasis in this interview was to understand what the respondents thought about the nature and scope of the services rendered by the host company; the value derived from these services; and what their role was in helping government reduce unemployment and poverty. In each case, the interview sessions were timed to include at least 60 minutes with each of the Participants. The interviews covered the following topics:

- Business experience before joining
- Value derived from incubation and challenges
- Reasons for joining the programme
- Understanding of incubator mandates and objectives
- Performance of the incubation programme
- Impact of IB resources on business growth

- Why government created and continue to fund incubators
- Is government doing enough to support incubators?
- Support government in reducing poverty and unemployment
- Preferred mode of contribution e.g. financial / non-financial and why Recommending others to attend incubation programme

The interview meetings were held directly with the Participants in their respective businesses in November 2017. As part of the debriefing process, the researcher encouraged each Participant after the interview to express their feelings about the entire research experience and to make them feel comfortable about the research (Hove and Anda, 2005). Debriefing also enabled the researcher to clarify any doubts or anxieties that the Participants had about the motive of the study by informing that information from the interviews would be utilised to meet research requirements rather than private use (Blandford, 2013) (Blandford, 2013).

### 3.8 Data analysis Framework

Analysing data in this study entailed reduction of large volumes of data into a meaningful story and interpretation of that story (Kawulich, 2004). The study adopted qualitative data analysis techniques that conform to case study design. The qualitative analysis guidelines suggested by Kawulich (2004) were adapted and applied to enable analysis of the perceptions of Incubatees and Graduates towards the Chemin Incubation Programme. These include the following (figure 3.2):

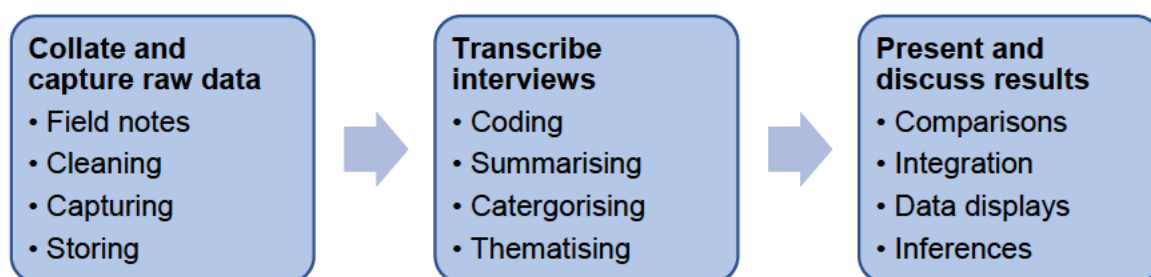


Figure 3.2: Steps followed to analyse data

As illustrated above, analysing data in this study began with collation of fields notes from the two groups of Participants, followed by cleaning and capturing of the data using Microsoft Word Processing. The next step entailed transcription of the interviews, which involved coding each data set using colour and mind maps. Based on this approach, the data sets from semi-structured interviews are transcribed and translated into three logical themes, as follows: (1) the reasons that prompted Incubatees and Graduates to join the Incubator; (2) the general perceptions and attitudes of Incubatees and Graduates towards business the incubation programme and (3) understandings of Incubatees and Graduates about government's decision to fund business incubation initiatives. Thematic analysis ensured deeper understanding and theoretically informed interpretation of the results (Nowell, 2017).

### **3.9 Adherence to research ethics**

Within the context of research, ethics concerns application and upholding of morals standards before and during the conduct of the research project. It dictates how a researcher should relate to and interact with the respondents during the investigation (Kothari, 2017). In this investigation, the rights and safety of the respondents were safeguarded through the following measures:

#### **3.9.1 Obtaining informed consent from participants**

Informed consent implies that potential respondents should have all the relevant information that may affect their willingness to provide the required information (Jelsma and Clow, 2005 and Nakkash, 2009). This information should be provided comprehensibly and clearly to ensure that all the Participants understand that they can exercise their free will to either contribute to the study or abstain should the need arise. Participants also need to be alerted to potential and real risks generally associated with the research project (Smith, 2003). Following this principle, current and past Incubatees on the Chemin Incubation Programme were accordingly informed about the research objectives and data gathering procedures and their role in this process; privacy and confidentiality requirements and the right to ask questions before and during the research process. As indicated in Appendix 4, all the Participants agreed to participate in the research projects.

### **3.9.2 Permission to conduct study**

In addition to securing Participant consent, the research also sought permission from the Incubator's Branch/Centre Management. Subsequently, a letter requesting permission was dispatched to Chemin Management prior to the full study. Appendix 3 shows the response by Chemin Management authorising the qualitative study. In addition, the Ethics Clearance (Appendix 2) also confirms approval of the study. This evidence was letter used to assure Incubatees and Graduates that the study was legitimate and risk-free.

### **3.9.3 Prevention of harm to the respondents**

Central to the conduct of this research was the duty to minimise any emotional, psychological or physical harm to the research Participants. Consequently, sensitive and/or intrusive questions that could affect Participants' private lives and dignity were completely avoided. Participants were also not compelled to share sensitive information about the incubation programme and their businesses. Throughout the interviews, Participants were treated cordially and respectfully, and were offered time to query those aspects of the interview that they were not sure of.

### **3.9.4 Anonymity, confidentiality and privacy**

Another important ethical responsibility in this study was to maintain the confidentiality of the informants and the data elicited through the interviews (Rahman, 2017). In addressing these ethical principles, the consent letter assured Participants about non-disclosure and protection of their personal particulars in the research. Revealing data sets such as details of Participants' companies, trading information and residential areas were accordingly removed from the text to avoid distress of Participants should such information be divulged to other parties. Explicit textual citations in the data were replaced with codes (Clark, 2006 and Fenge, 2019).

### **3.9.5 Reaching out to Participants**

Meeting the informants personally in their incubation centre for the first time was important in building and maintaining rapport and mutual trust prior to the study. Practically, this means being aware of the potential impact of cultural diversity on data gathering and interpretation of results (Riese, 2018). Prior visits were arranged with management to gain insight into the 4 Chemin branches that offered incubation services to SMMEs. This helped improve the

researcher's familiarity with the research setting, as well as her acquaintance with potential respondents (Given 2008).

### **3.9.6 Debriefing of the Participants**

Following the interviews with the Participants, a short debriefing session was held with the Participants. The aim of this debriefing session was to clarify the intentions and outcomes of the study as some of the Participants were anxious to know if the research results would not affect their relationship with the incubator (Allen, 2017).

### **3.9.7 Acknowledgement of sources used**

Proper citation and acknowledgement of all the sources and publications used in the study is of utmost importance for any researcher across disciplines. Improper and inaccurate reporting of sources used conflicts with the principle of trustworthiness – the search for the truth (Roig, 2003). In this study, the researcher presented the responses accurately using ethically appropriate, clear and balanced analysis and interrogation of the results using inductive reasoning. Information gathered from different authoritative sources was accordingly paraphrased and summarised in the researcher's own words. Where direct words were used, the researcher used appropriate punctuation marks to illustrate the originality of the words cited.

### **3.10 Conclusion**

The discussion above has shown how the research was executed to evaluate the perceptions of Incubatees and Graduates towards the incubation services offered by their host company. The study was implemented using a qualitative approach, semi-structured interviews and criterion sampling. Following is the presentation of results.

## **CHAPTER FOUR**

### **PRESENTATION OF RESULTS**

#### **4.1 Introduction**

In this chapter, the results on the general perceptions and attitudes of Incubatees and Graduates towards the Chemin Incubation Programme are presented and explained. The aim is to show whether there were any perceptual similarities and differences between the two groups regarding (a) the reasons for joining the incubation programme; (b) Incubatees and Graduates perceptions and attitudes towards Chemin Business Incubation and (c) government's funding of incubation programmes. The results are presented logically in line with the three research objectives, starting with a brief characterisation of the sample, and then detailed answers to each of the eleven interview questions later. Demographic information is vitally important as it provides insight into who received incubation services in terms of age and gender distribution; how long they have been with the incubator; what business experience they had; what their educational levels were and how long they have been operating since they left the Chemin Incubation Programme. Thick descriptions and narratives are used to illustrate Participants' perceptions towards the Chemin Incubation Programme.

#### **4.2 Participants' demographic profile**

As indicated in chapter three, the study included 7 Incubatees who had been with the Chemin Incubation Programme for the past eighteen months and 5 Graduates who completed the incubation programme in the past three years (i.e. 2016-2018). Comparing Participants' demographic profile is helpful in understanding their general perceptions and attitudes towards the Chemin Incubation Programme and their role in assisting government to address poverty and job creation in the economy. Tables 4.1 and 4.2 describe the characteristics of the sample in terms of age, gender, education, and business experience.

**Table 4.1 Current Incubatees**

Participant	Age	Gender	Education / Qualifications	Prior Business experience	No. of years Business in operation	No. of years in incubation
1A	35-45	Male	Masters degree	3 years	1-3 years	1-2 years
1B	45-55	Male	Diploma	5 years	3-5 years	3-5 years
1C	35-45	Male	Grade 12 (Matric)	3 years	1-3 years	1-3 years
1D	35-45	Male	Grade 12 (Matric)	1-3 years	1-3 years	2 years
1E	45-55	Male	Degree	1-2 years	1-2 years	2 years
1F	45-55	Female	Lower grade (1-9)	5 years	5 years	2-3 years
1G	35-45	Male	Grade 12 (Matric)	1-3 years	1-3 years	2 years

Table 4.1 reports that four (4) Incubatees were between the ages of thirty five (35) and forty five (45); while the rest of the group was between forty five (45) and fifty five years of age. Women were hugely underrepresented in the Incubation Programme as there was only one (1) female in a group of seven (7) male Incubatees. Of the seven Incubatees interviewed, two males (2) had relevant degrees and one (1) with a diploma, which was also linked to the chemical industry. Only two (2) of the Participants did not have formal qualifications (for example lower grade and matric). Strong educational background has been positively linked to SMME growth and sustainability (Cooney, 2012; Njoroge and Gathungu, 2013); while limited skills background and lack of experience is generally associated with stagnation and failure of many promising start-up businesses (Iwu, 2016 and Rashid, 2019). The majority

(5) of Incubatees had business experience ranging between 1-3 years; and only two (2) Participants in the group had 5 years' experience in running a chemical manufacturing business. The length of time spent in the incubation programme also varied between 1-3 years and 3-5 years; suggesting that Participants joined the incubation programme at different time intervals.

**Table 4.2 Graduates**

Participant	Age	Gender	Education / Qualifications	Prior Business experience	No. of years in business	Length of time after incubation
2A	45-55	Male	Degree	5 years	5 years	5 years
2B	45-55	Male	Diploma	None	5 years	3-5 years
2C	35-45	Male	Degree	5 years	5 years	2-3 years
2D	25-35	Female	Degree	3 years	3 years	3 years
2E	55-60	Male	Diploma	3 years	5 years	5 years

According to table 4.2, only Participant 2D was in the 25-35 age range, followed by Participant 2C in the 35-45 age bracket. The rest of the group belonged to the adult population with their ages ranging from 45-55 and above. This suggests that the composition of the sample had a mixture of youth and adult population in the Chemin Incubation Programme. As was the case with the incubatee group, women were grossly underrepresented in the graduate category, as there was only one (1) female Participant in this category; suggesting that opportunities for women participation and empowerment in incubation services requires serious attention from policy makers. Furthermore, out of the five Graduates interviewed, three (3) had degrees; while the remainder of the group (2) had acquired diplomas in areas like purchasing management and public management. This means that all the interviewees in this category had formal education and training which contributed positively to the growth of their enterprises. Regarding prior business experience only Participant 2A and 2E had been in business for 5 years; while the rest of the group had 3-5 years' experience. The length of time after graduation varied from 3-5 years across the group.

### 4.3. Key findings

#### 4.3.1 Research objective 1: To provide a comparative understanding of the reasons that prompted Incubatees and Graduates join the Chemin Incubation Programme.

The underlying goal in this question was to comparatively identify the major reasons that prompted Incubatees and Graduates to seek business incubation opportunities at Chemin. Overall, the data from semi-structured interviews suggest that Participants were motivated by different reasons to join the Chemin Incubation Programme. For example, Participant 1A joined because she needed to gain practical business knowledge on how to run a business. Participant 1C drew inspiration from friends who told him that Chemin provided integrated enterprise development (ED) services to start-up businesses. Upon receiving this information, he then decided to join the Chemin Incubation Programme in 2014, and since then, his business has been doing fairly well in the chemical industry. Participant 1D said he joined the incubation programme because he was looking for entrepreneurial training opportunities to broaden his knowledge and skills on chemical manufacturing. Participant 1E and 1G had similar needs as they both wanted to gain full exposure to the chemical industry. From these explanations, it can be inferred that the reasons for joining the incubation programme were different but complementary across the two groups (Incubatees and Graduates).

From a graduate experience, Participant 2A reported that he had been invited by the incubator to join the programme; suggesting that the motivation to join the programme emanated from extrinsic rather than intrinsic motivation. This is because Participant 2A had already been exposed to business incubation services prior to joining the Chemin Incubation Programme. Participants 2C and 2D had almost identical reasons; suggesting that they had come to the programme in order learn and gain additional experience on how to run a chemical manufacturing operation. Participant 2E reported that gaining access to latest chemical manufacturing technology was an important consideration in his decision to join the incubator.

On the contrary, some participants were motivated by their social backgrounds to join the Incubation Programme; such as poverty, unemployment and systematic exclusion

economic opportunities as a result of discriminatory policies of the past regime. From an incubatee perspective, Participant 1A reported that she did not have practical business experience in chemical manufacturing before she joined the incubation programme. She started the detergent/cosmetic making business based on informal learning, observation and her own vision. Participant 1C reported that she started her company with 4 female and 2 males, 4 youth and 2 adult employees, having graduated with bachelor's degree in technology. Participant 1D had been employed back in 2014; supplying industrial chemicals and detergents to the mines. Having attained relevant business qualifications, he soon realised that he needed assistance to be able to run his venture successfully. He then conducted research to find incubation services in the chemical industry. This Participant was deeply concerned that the chemical industry had not been adequately transformed as it was still dominated by Indian and White businesses. Participant 1E said that he started his venture without adequate experience and skills; which sometimes affected growth of his business. Participant 1F had the lowest grade in the group; implying that she had no formal education; yet her business was successful because she had five years of practical business experience and a strong determination to succeed. Participant 1G only had matric and 1-3 years of business experience. What is striking about the last two participants is that while education plays a key role in entrepreneurial success; however, in some cases, it is the level of commitment and motivation that determines the long-term survival and prosperity of entrepreneurial ventures.

From a graduate perspective, Participant 2A said that he already had 28 years of business experience when he joined the Incubator. His previous employer offered incubation services too, which exposed him to chemical manufacturing business. Participant 2B had no prior business experience when he started his business and relied mostly on his work experience as a clerical employee; contrasting sharply with participants 2C who already had 5 years prior experience when he started his business. Participant 2D was the youngest female participant in the graduate group having only 1-3 years prior experience. Aged 55-60, Participant 2E was the oldest member of the graduate group with 5 years' experience in business.

What is clear from these findings is that compared to Incubatees, most of the Graduates had started their businesses with adequate business experience. The only exceptions were Participants 2B and 2D who had limited business experience. The ability to start a business

without relevant experience is an indication that some of the entrepreneurs were motivated and determined to succeed despite their limited knowledge of chemical manufacturing business. Overall, these findings suggest that perceptions differed on why Incubatees and graduates joined the Chemin Incubator. For example, while some participants joined the incubation programme as seekers of survivalist opportunities, others came to the programme because they had strategic goals to grow and expand their businesses beyond the incubation environment. These Incubatees were more likely to contribute to job creation than those that wanted government assistance and support just for survival. A clear message from these findings is that reasons for joining the incubation were different but complementary in some respects; especially on resources and skills development needs.

#### **4.3.2 Research objective 2: To compare the perceptions and attitudes of Incubatees and Graduates towards the Chemin Incubation Programme**

The data from interviews suggest that Incubatees and graduates had different perceptions and attitudes towards the Chemin Incubation Programme. Common perceptions were that the programme is helpful in many respects as it strengthened the resource capabilities of start-up ventures through funding and capacity development. Both sides also agreed that incubation services played a key role in facilitating learning and skills transfer to emerging ventures. Overall, both groups were generally receptive to and appreciative of the incubation programme; suggesting that the programme enjoyed acceptability among beneficiary SMMEs. The positive attitudes towards the Chemin Incubation Programme can be attributed to the fact that the programme provided all basic services under one roof; including business management, finance and accounting, skills development, marketing and business networking. This holistic approach accords with evidence from the literature which showed that most incubators often provide a mix of support services to stimulate growth of SMMEs. This observation also aligns with the resource-based view (chapter two, subsection 2.5.2) that incubation services should include sufficient resource supplies to enhance sustainability of new ventures.

On the contrary, some incubates and graduates perceived the programme in a rather different light, arguing that there were delays in obtaining SABS approval and certification for detergent manufacturing facilities. This constrained their operational capabilities as they could not expand their production lines to serve new markets without a licence. Other

participants in this group pointed out that limited manufacturing capacity prevented their peers from leveraging opportunities within and outside the incubation system. This was attributed to lack of additional capital investment from the government. This group felt strongly that government is not doing enough to support emerging SMMEs in the chemical industry; which caused many new ventures to remain in the “survivalist mode.”

Incubates and graduates also expressed different views on programme responsiveness i.e. the ability of the incubator to meet their different entrepreneurial needs. For some Incubatees, access to incubation services was problematic due to long travelling distance to the incubator centres and lack of information on available SMME support services. By contrast, some Graduates asserted that it was the responsibility of the entrepreneurs themselves to take full responsibility for their own learning rather than depend entirely on the incubator. There was a strong insinuation that SMME owners should have a clear vision of what they want to achieve and constantly look out for opportunities that could be leveraged to achieve that vision. These observations suggest that the quality of entrepreneurs has a significant impact on the success of incubation programmes. As highlighted during literature review, self-motivation, continuous learning and perseverance are some of the key attributes that contribute to success of incubated ventures.

#### **4.3.2.1 Perceptions on the value and limitations of incubation services**

This question compared the perceptions of Incubatees and graduates on whether the Incubator programme created any value or benefits for their enterprises; and if not why. From an incubatee perspective, Participant 1A affirmed that the programme added real value to her business as it provided easy and affordable access to both material and financial resources that she needed to grow her business. In particular she was very pleased with technical support services as her business involved manufacturing of detergents with stringent compliance requirements. Participant 1B indicated that since joining the incubation programme, his business has moved from survivalist mode to a formal business. He thanked the incubator for providing all the guidance and professional assistance, especially with regard to financial management. Participant 1C commented that although he had not received adequate financial resources from the incubator, however, he was satisfied with business training and mentoring from the incubator’s team.

These positive experiences were also validated by Participant 1D who said that the incubator provided him with business information, facilities, training and technical support services; for example, marketing, advertising and information management. This participant said that he was happy with the resources that the incubator team provided, including technology, office infrastructure and sales support services. He was also pleased with the level of support he received when applying for SABS certification. On the contrary, Participant 1F said that although he was happy with office space and machinery, however, access to supply chain networks was still a big challenge and thus expected the incubator to assist in this regard. Participant 1G reported that he now employs 10 people in his business; which proves that the incubator is adding value to his business.

From an Incubatee perspective, Participant 1E had mixed feelings about the value of the Incubation Programme, saying that although the incubator added value in his business by providing much needed machinery and equipment however, there were delays in obtaining approval from the South African Bureau of Standards (SABS). Delays in obtaining SABS approval constrained production and prevented this participant from expanding into new markets. Participant 1C reported that the incubation programme exposed him to critical business competences such as business management; client management, bookkeeping and financial management; helping him gain knowledge on business operations. Participant 1F praised the incubator for training him on business network skills and while Participant 1G appreciated the fact that the Incubator had afforded him the opportunity to increase operations by providing additional funding.

From the side of graduates, Participant 2A confirmed that she had received professional training and mentoring from Chemin; which helped him improve his business knowledge and skills; while participant 2B had received financial literacy training from the incubator. Participant 2B spoke passionately about the incubator, saying it gave him the best opportunity to realise his dream in the chemical manufacturing business as he did not have relevant business experience when he started his venture. Similarly, Participant 2C indicated that being part of the incubator network introduced him to new business opportunities which extended beyond the incubation period. Participant 2D and 2E praised the incubator for resources and office space, saying these resources had stabilised their businesses and enabled them to expand their production lines. However, participant 2D also pointed out that he could benefit fully from the Incubation Programme because he had to travel long distances to get support in the Durban branch.

Geographical constraints and high travelling costs meant that he could not access support when he needed it most. For him, the solution was to spread the incubator's support services evenly across the branches to ensure equitable access for all Incubatees. On the other hand, Participant 2E reported that personalised business coaching and mentoring had given him insight into marketing research and product differentiation; which contributed positively to business expansion beyond the incubation programme.

In a follow up question, Participants were asked if they would recommend the Incubator's services to emerging ventures in any other field and why they would probably do this. From an incubatee point of view, Participant 1A affirmed that she would definitely recommend the programme to prospective SMMEs. She qualified her point by saying that: *"While business savvy people may not be in dire need of business incubation services, a lot of small businesses out there depended entirely on these services to grow and prosper in their chosen market segments."* Participant 1B affirmed that he would definitely recommend young entrepreneurs to join the incubation programme, because it provides opportunities for learning and self-development which are not available in the market. Participant 1C felt the same way, saying that the incubation programme would help new comers gain basic grounding in business management skills; so, he would certainly recommend the programme to his peers and acquaintances respectively. Participant 1E was also full of praise saying the Chemin Incubation was good for all SMMEs as it did not have major entry barriers. From the side of Graduates, Participant 2A indicated that he would also encourage start-up businesses in his area to come and join the Chemin Incubation Programme "so that they can get help." The Participant emphasised that incubation is important for SMME owners with limited educational background. Participant 2B went further, saying that available SMME training opportunities need to be extended to young people in disadvantaged communities because that is where budding entrepreneurs are concentrated. For Participant 2C indicated that even though he would encourage young entrepreneurs to utilise incubation opportunities at Chemin, however, the key to success was motivation, determination and the ability to take risk. Participants 2D and 2E affirmed the notion that the development needs of emerging entrepreneurs should be prioritised by the incubator; given the high level of unemployment among the youth in South Africa.

The general impression from these findings is that despite differences of opinion on the amount of support derived from the Incubator, generally all the participants confirmed that the programme added value to their business, albeit in varying degrees. For some, the

programme meant learning opportunities; which they subsequently leveraged to grow their businesses sustainably beyond the incubation environment. For others, the incubation brought resources which they needed beef up production capacity and diversification into new product lines.

#### **4.2.3 Perceptions on the incubation process**

This question sought to establish if there were any perceptual differences between Incubatees and graduates regarding the incubation process. This question drew mixed reactions from the Participants. Participant 1A for example, commented that he was admitted because he met the criteria which is manufacturing of detergents and related products and was required to sign the Memorandum of Agreement (MoA). Thereafter he progressed to the 6-month pre-incubation period where learnt about chemical manufacturing and raw materials. The participant further stated that although the programme is both accessible and responsive to the needs of current Incubatees, however, it does not address all the needs of Incubatees. There were still gaps in technical services, as some of the incubator's centres/branches did not have the resources and capacity to provide the same standard of services offered at the company's main facility in Durban. Despite these shortcomings, she was grateful that the incubator had helped her with training in soft skills, bookkeeping, administration, but need more technical support. He wanted to do testing but could not because the incubator's Port Elizabeth branch did not have manufacturing facilities; forcing a move to Durban. Participant 1B reported that he too was subjected to the same rigorous admission criteria and pre-incubation stage where received training, mentoring and assisted to organise and set up the factory. During the pre-incubation period, he was assisted with raw materials; and packaging materials for his products. He did not have any reservations about the scope and quality of the incubator's services. By contrast, Participant 1C reported that he was admitted based on his potential and personal motivation to succeed. He only mentioned the basic training in manufacturing and packaging of detergent products in stage 2 of the programme after the signing the MoA. Having gone through the same admission criteria and training requirements in stages 1 and 2, Participant 1D spoke fondly of the incubator's services, saying that it provided much needed resources that facilitated growth in his business; including technical support, training laboratory and linkages with other businesses in the value chain, which improved the marketing capabilities of his business. Similarly,

Participant 1E confirmed that the admission criteria involved pre-screening of applicants through such criteria as business performance (R1000 monthly profit) and availability of a Champion to assist with mentoring and coaching services. He had benefited from the incubator's services through skills development and financial management training. Participants 1F and 1G affirmed that they qualified for admission and were eventually placed on the main incubation programme where they learnt about product testing, marketing; exports; and procurement of raw materials.

Speaking from a graduate experience, Participant 2A confirmed that "admission to the programme depends on you meeting their criteria which includes a R1 million turnover per annum; potential to grow the business and fitting the Department of Trade's definition of an SMME. The Participant further indicated that during the pre-incubation period, he was trained on detergent manufacturing technology; business management and quality control. However, the Participant noted that while he appreciates the support services rendered, however, some of his business needs had not been met; including regular communication to find out "where you are and what additional support you need." This Participant stressed that there is "no strategy checking, no funding, and no tracking of Graduates and their businesses when they exit the incubation programme. Equally, Participant 2B confirmed that he went through the same screening process and eventually made it to the main incubation programme. Participant 2B emphasised that a holistic approach involving current and past Graduates is important because grooming and training of Incubatees is not going to yield the desired results if they fail shortly after leaving the incubation programme. He added that government should not assume that all entrepreneurs who enter the incubation programme have adequate business experience and know-how. Some come from career backgrounds that are not even related to chemical manufacturing business. For this reason, it was important for the incubator to do proper screening of candidates to ensure that people get the type of support and assistance that suit their business needs. Participant 2D indicated that once he had completed the 6-month pre-incubation period, he benefited immensely from the incubation programme; including mentoring on business tax administration services and guidance on labour law literacy. Participant 2E indicated that while the incubation programme was fairly accessible, however, the induction of Incubatees need to be improved to sensitise Incubatees about professional business management practices – because when they leave the programme, some of them do not practice the things that they learnt from the programme – for example teamwork, risk management and human resource management.

On the whole, the above evidence from semi-structured interviews suggests that although there were differences about programme effectiveness and the quality of services rendered, however the majority of Incubatees and Graduates were generally receptive towards the Chemin Incubation Programme. Even those Participants who held different views were not really critical about the programme as such, rather they wanted to see greater improvement in both scope and accessibility of incubation services, particularly in remote branches of the incubator. As regards the ability of the incubation programme to meet their needs, the findings suggest that there were gains and gaps in programme implementation.

### **4.3.3 Research objective 3: To find out if the Incubatees and Graduates understand the government's goal of funding business incubation initiatives**

#### **4.3.3.1 Perceptions on government's goal of funding business incubation**

This question compared and contrasted the understandings of Incubatees and graduates on the role of government in funding business incubators i.e. providers of enterprises development services. Participants on both sides reacted differently to this question. For example, while some expressed optimism about the critical role of government funding in accelerating SMME growth and development; others were rather sceptical about this; suggesting that such efforts were insufficient and inconsistent. On the side of Incubatees, Participant 1 commented that government created incubators to stimulate SMME growth because they are key players in job creation and income generation in the economy. She pleaded that government must continue funding incubators because they are key to SMME growth and sustainability. On the contrary, this participant felt that government support was not enough as he could not secure additional machinery for large-scale manufacturing operations. The Participant stressed that Government should make additional investment to help Chemical manufacturing SMMEs improve their production capabilities. Participant 1B differed with this view, saying that it is unfair to expect the government to do everything for SMMEs. "Incubation is there to give you a good start and thereafter you should be able to thrive in the market without the incubator". This view was supported by Participant 2C who said that while government is legally bound to assist budding entrepreneurs, this was not the panacea for success; "the entrepreneur himself

must set the pace for growth and success of his business. Participant 2D indicated government should focus more on helping women because the programme is currently dominated by males. Government should monitor recruitment activities to ensure that incubators meet gender equity targets when recruiting Incubatees. Participant 2E suggested that government should fulfil its promises to the incubator. This required pragmatic policy intervention to strengthen resource allocation and capacity expansion in incubation centres. This Participant was optimistic that incubation could work if government followed up to ensure that the programme is implemented properly in all areas. He added that there is a primary need for grant funding and not loans. The requirement that spouses needed to sign the loan agreement prevented many Incubatees from accessing funding opportunities on time. Participant 1 C contended that adults have been excluded from the incubation programme; and there is no money to support SABS certification; which stalls SMME expansion into other subsectors of the chemical industry. Participant 1D said that it all depends on individual perceptions. The platform for SMME growth has been created and additional support can be sourced from relevant government departments and/or agencies to ensure that all SMMEs benefit from business incubation services. Participant 1E said that government helps to some extent but incubation programmes need to be decentralised to ensure that start-up businesses are able to access these services frequently. Participant 1F held different views, saying: *“The answer is yes and no. Yes, because government provides resources. No because the incubator is not easily accessible to emerging entrepreneurs as the services are centralised.”* Participant 1G indicated that it would be better if incubators were assisted to improve their sustainability rather than focusing on short-term operational issues.

Participant 1D argued that the government is trying to come up with systems to support SMME growth by providing a platform to build critical skills that young entrepreneurs need to sustain their businesses. For this reason, government needs to increase funding for incubators not just in the chemical industry but in all economic sectors to benefit emerging enterprises. Participant 1F said that although the goal of creating incubators was to stimulate SMME activity, however, entrepreneurs need to put more effort to sustain their ventures. Participant 1G said that given the difficult trading conditions in the country at the moment, it would be prudent for government to increase SMME support and remove barriers to financial resources.

On the contrary, Participant 2A, a former graduate on the incubation programme, was rather critical of the way in which government is handling incubation services, saying: *“No research is done to determine the actual needs of Incubatees. Government simply created incubators without proper planning. The problem is that workers in incubation programmes lack motivation; which often reduces the quality of incubation services.* Participant 2B pointed out that incubation services remain standard and therefore not in line with the rapidly changing needs of entrepreneurs in the chemical industry. *“The incubator needs to constantly monitor the business environment and adjust its programme accordingly,”* the Participant added. Participant 2B argued that as much as government created incubators to bolster SMME growth, this should not be seen as the only solution to SMME sustainability. According to this participant, government needs to differentiate between highly motivated entrepreneurs who want to make a difference to people’s lives through job creation and skills transfer; and those entrepreneurs who just want to gain access to SMME grants. Supporting this view, Participant 2C said that government should refer survivalist entrepreneurs to short-term projects as they do not have long-term plans that benefit the economy. Participant 2D indicated that until government addresses gender inequality in incubation services, its role in funding these services would remain obscured. Participant 2E was rather optimistic, saying that government is using monitoring and evaluation (M&E) data to improve service delivery in its incubation centres. According to this Participant, *“entrepreneurs must meet government half-way. As beneficiaries, they must come up with solutions on how to improve access to and sustainability of incubation services.”*

From these comparisons, it is clear that perceptual differences existed not only between the two groups but also among members in each group. These tensions and contradictions illustrate the complexity of incubation services and as well as the conflicting needs and priorities of clients i.e. Incubatees and graduates. Most importantly, these perceptual differences also illustrate the differences in thinking between opportunity entrepreneurs and survivalist entrepreneurs in why government funded the programme. From a survivalist point of view, government is by law obliged to assist SMMEs both materially and financially, irrespective of their status. By contrast, opportunity entrepreneurs saw the role of government in terms of creating an enabling environment where visionary entrepreneurs could pursue their venture in ways that contribute to socio-economic development rather than short-term gains. These dichotomises suggest that some entrepreneurs are motivated by short-term financial gains rather than long-term entrepreneurial success.

#### **4.3.3.1 Perceptual differences on the role and mandate of the incubator**

The second part of the question compared the perceptions of the two groups on the role of the incubator's mandates and objectives. When prompted, Participant 1A indicated that incubators were created for the sole purpose of empowering start-up entrepreneurs so that they can grow their businesses. However, this Participant argued that incubation does not mean that emerging entrepreneurs should depend entirely on incubators for support. In her words, "people should take the initiative and have a vision to grow their businesses independently rather than rely heavily on the government for support." Participant 1B highlighted that while the incubator is there to help start-up businesses; however, the onus lies with the business owner to take risk and grow the business. The incubator can help, but at the end of the day, it is the entrepreneur himself who must show character and determination to succeed. Meanwhile, Participant 1C indicated that an incubator's mandate includes providing training, marketing support, research, books, and show them how to manufacture products and internship opportunities to help them gain practical business experience. Participant 1D was very candid about the incubator's mandate, saying that it provided much needed raw materials, and resources. According to this Participant, "Chemin is committed to growing and developing SMMEs". Participant 1E said that incubator enables SMME growth through coaching, guidance, marketing and technical support. Adding to this, Participants 1F and 1G reported that with adequate support from the government, incubators would go a long way in meeting the diverse needs of Incubatees who, in most cases, are insufficiently prepared for the entrepreneurial journey.

Similarly, Participant 2A also demonstrated clear understanding of the incubator's mandate, saying that incubators are mandated to ensure that small businesses grow and become sustainable entities in the chemical industry. This Participant also suggested that incubator's mandate should also be extended to ailing SMMEs. Simply put, incubators should not confine their support to stable, well-performing SMMEs. Rather, the aim should be to address the needs of all emerging enterprises across the chemical industry. In contrast to these comments, Participant 2B argued critically that the scope of the incubator's services is problematic because some of the promised services are not available due to lack of resources and manpower in the incubation centre. Participant 2D concurred with Participant 2B by saying that it was crucial that when recruiting emerging entrepreneurs, the incubator

should look carefully into the unique business needs of each incubatee before admitting them into the programme. She added that young people with little education and relevant business experience need special treatment to help them adjust to new market realities outside the incubation setting to prevent stagnation and failure of their young ventures. In contrast to these views, Participants 2E felt that incubator's mandate is lacking when it comes to funding assistance after incubation. According to these participants, the incubator's mandate should focus on prioritising the needs of opportunity entrepreneurs because they are the ones who have the potential to contribute to job creation and poverty reduction. This participant was very critical of necessity entrepreneurs, saying that their actions created dependence on government handouts.

The overall implication of these findings is that Incubatees and Graduates had different perceptions about the goal of government in funding incubators and the mandate and objectives of incubators. On the one hand, it was felt that the incubator should do more to support start-up businesses. In this view, young, inexperienced start-up businesses are wholly dependent on the incubator for survival. On the contrary, some graduates argued strongly that the incubator should not be seen as the "sole provider" rather, each entrepreneur should use the little support from the incubator as a stepping stone to achieving their vision.

#### **4.3.3.2 Perceptions on contribution of incubated SMMEs to the economy**

The third part of this question compared participants' perceptions on the contribution of Incubatees and graduates to economic growth and poverty alleviation. Despite differences of opinion on what each group contributed to the economy, most Participants expressed willingness and commitment to address these issues through job creation, youth skills development; entrepreneurial coaching; and marketing assistance. Participant 1A emphasised that enterprise development is one area that is lacking in promoting small business in South Africa. She said her business had started providing these services to help start-ups gain footing in the chemical manufacturing industry. Participant 1C was rather optimistic, saying that despite limited opportunities in incubation services, his business would continue to fund training for start-ups and give more jobs to his community. Participants 1D and 1E voiced similar sentiments, saying they would definitely invest in job creation and training of emerging ventures in the chemical

manufacturing industry. Participants 1F said his ability to contribute to job creation was limited by lack of adequate support from the incubator; suggesting that he was dependent on the government for support. Participant G said that he provided coaching to small and survivalist entrepreneurs in his community; saying “this is my way of giving back to the community.” From a graduate point of view, Participant 2A reported that he had already employed 7 people in his business and subject to economic conditions he would increase the number of staff to 10 in the next financial year (2021). Participant 2B said that his company had started a social responsibility programme to teach young people about entrepreneurship. Participant 2C had 5 fulltime staff in his business, and described this as a sign of “good things to come” – will employ more people as the business grows. Participant 2D indicated that since leaving the incubation programme, his business struggled to survive due to tough competition and lack of follow-up services from the incubator. She felt strongly that in some cases, it is the inadequacy of support that demotivates potentially successful entrepreneurs after graduation. Echoing these sentiments, Participant 2D elaborated that “leaving the programme does not mean that you are now fully capable of handling market challenges, you still need guidance; especially in technical aspects of the business as the chemical industry faces rapid technological changes in both design and manufacturing of products.” Participant 2E said that his business had invested in youth skills development but this initiative was also influenced by growth trends in his business. “The skills training budget increases during good times but is likely to shrink during hard times, and that is the reality of business”, he said.

In a follow up question, Participants were also compared in terms of the contribution that they would make to socio-economic development in South Africa. Participant 1A explained that her contribution would include nonfinancial support, including marketing expertise and business-related training to start-up businesses. This Participant believed strongly in self-help rather than dependence on government handouts. She believed young entrepreneurs should take full responsibility for their learning and growth of their ventures. In this regard, Participant 1B commented that many Incubatees still believe that the government was the answer to their growth and contribution to the economy. “But the truth is, as she put it, you need to go out there and make your mark.” She concluded by stating that she would focus on women empowerment, as many young women were unemployed in her area. Participant 1C said he was more interested in training and grooming youth to engage in entrepreneurship. He said it was important for young people to understand that their future lies in entrepreneurship rather than professional careers alone. In a similar vein, Participant

1D was keenly interested in youth development, saying since the future of the country lies in their hands, they needed both financial and material support to be able to grow and sustain their business ventures.

Together, these findings suggest that most Participants on both sides were willing to support the government's call to alleviate poverty and unemployment in the country. However, this depended on two things: First, the amount of support that Incubatees and Graduates received from government-led incubation services, and second, the visionary capabilities of each entrepreneur in identifying and leveraging available opportunities to stimulate employment creation and enterprise development in their communities. Participant 1F indicated that he would certainly assist with the development of entrepreneurial competences among the youth because, as he put it: "My belief is that venture creation starts at a young age...help youth understand the economic world." Participant 1G explained that it takes creativity, innovation and hard work to be successful in business. Thus, in order for entrepreneurs to contribute meaningfully to socio-economic development, they must not rely on handouts from the government or the incubator – because entrepreneurship is about "seeing the bigger picture."

What is interesting about these findings is that they reflect candidly, the different orientations that Incubatees had regarding their role in socio-economic development. Those entrepreneurs who exhibited a strong strategic orientation (long-term view) believed that it is possible to create jobs and end poverty without help from the government or the incubator. Conversely, those who were risk averse felt that they could not do this (job creation and poverty alleviation) without adequate support from the government. This illustrates the difference between goal-oriented entrepreneurs and consumption-oriented entrepreneurs in the Chemin Programme. On the whole, the preceding findings suggest that despite differences of opinion among some Incubatees and Graduates, the majority of participants across the two groups had positive attitudes towards the Chemin Incubation Programme; hence the desire to recommend it to potential Incubatees . Having said that it is also important to note that some only saw the incubator as the sole provider of support services to help their enterprises survive, while others thought of the incubator as a catalyst for growing and sustaining their enterprises well into the future.

#### **4.4 Conclusion**

Chapter 4 presented the research findings on the perceptions of Incubatees and Graduates towards the Chemin Incubation Programme. What is clear from these results is that while participants on both sides held differing views on the reasons for joining the incubation programme, government's goal of funding SMMEs and Incubator mandates and objectives, the overwhelming response suggests that some Incubatees and graduates were generally satisfied with the services rendered by the Incubator. Most importantly, participants from both groups agreed that significant improvements were necessary in resource allocation, certification and accreditation, capacity development, business coaching and mentoring, and diversification of incubation services to cover the needs of Incubatees after graduation. This would ensure sustainability of emerging enterprises well beyond the incubation programme. The next chapter provides a comparative analysis of these results in accordance with the research objectives.

## **CHAPTER FIVE**

### **DISCUSSION OF FINDINGS**

#### **5.0 Introduction**

Consistent with the qualitative approach, this chapter provides a comparative analysis of the perceptions and attitudes of Incubatees and Graduates towards the Chemin Incubation Programme. The analysis entails an integrated discussion of the findings with the literature, underpinning theoretical framework and parallel studies to demonstrate the implications of these results for policy and practice in South Africa.

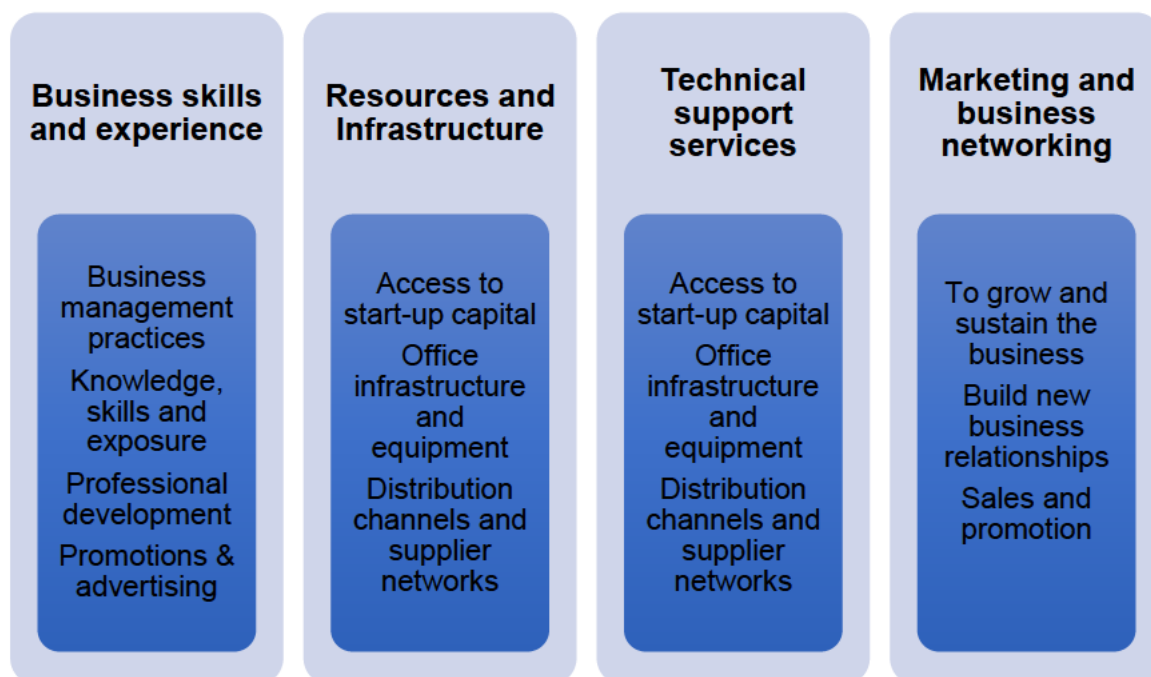
#### **5.1 Reasons for joining the Chemin Business Incubation Programmes**

##### **5.1.1 Desire to learn and grow as an entrepreneur**

The study canvassed Participants' personal and business background to determine if these factors had any impact of the decision to embark on entrepreneurship. Empirical evidence from parallel studies confirms that entrepreneurial background is positively linked to opportunity recognition and entrepreneurial success (Kinias, 2013). Overall, insights from the interviews suggest that Incubatees and Graduates had different experiences when it comes to entrepreneurial background. In most cases, Participants' entrepreneurial backgrounds were shaped by factors such as personal ambition – the desire to succeed against all odds; career choices; and educational achievement. These results support the empirical observation that the possibility of entrepreneurship increases exponentially as an individual accumulates experience in one career; or switches from one career to another over time (Rider 2019).

An empirical study by Koster and Anderson (2018) validates these results by showing that that employed individuals accumulated a wealth of experience and a diverse set of skills which they later leveraged to grow their own ventures following exit from their long-standing careers. Therefore, the quality of work experience attained from previous employment is very critical in enabling the new entrepreneur to navigate the competitive landscape in his chosen industry. Similarly, Yuan and Qalati (2019) discovered that potential entrepreneurs

used their prior work experience, family support and social networks to mobilise the resources needed to achieve their entrepreneurial goals.



**Figure 5.1 Reasons for joining the incubation programme**  
**Source: Own creation (2020)**

As highlighted above some Incubatees and Graduates joined the incubation programme for different but complementary reasons. In both cases, Participants perceived business incubation as an important vehicle for gaining access to entrepreneurial development opportunities. The decision to seek business incubation services was rational rather than spontaneous. Many of these entrepreneurs were concerned about the high risk facing their start-up companies and consciously sought help to improve growth prospects of their ventures. Figure 5.1 classifies Participants' reasons for joining the incubator into four broad categories as follows:

### **5.1.2 Business skills and experience**

As indicated in figure 5.1, some Participants came to the incubation programme in order to learn and acquire critical competences necessary to operate a start-up venture in the chemical industry. The need to acquire knowledge and skills stems from the fact that many of the interviewees came from disadvantaged backgrounds with limited educational backgrounds and industry experience. These findings are consistent with the Knowledge-

based View (KVB) in chapter two which states providing equitable access to entrepreneurial education and training opportunities is critical in ensuring that young inexperienced entrepreneurs gain relevant knowledge and skills to run their ventures sustainably (Simpson, Bellamy and Tuck, 2004; Raposa and Paco, 2011; Lynch, 2019; Ngoasong, 2015). Newly formed ventures face different market volatilities and risks and thus need to be versatile and confident in their entrepreneurial strategies and technical-know (Van der Westhuizen, 2019). Knowledge and skills provide this confidence and enable emerging entrepreneurs to envision the future of their enterprises while leveraging available growth opportunities in their chosen markets. Over and above knowledge and skills; entrepreneurial learning also nurtures and builds positive attitudes, values and beliefs that build confidence and motivation for Incubatees and prospective entrepreneurs to pursue venture creation as a viable option that can be pursued in place of gainful employment (Raposa and do Paco, 2011).

The value of practical skills training is confirmed by the literature which shows that exposure to experiential learning opportunities helps emerging entrepreneurs to gain practical business experience and exposure to their chosen industries (Mason and Arshed, 2013). Learning by doing constitutes the most effective strategy for inculcating and strengthening an entrepreneurial culture among budding entrepreneurs (Copley, 2011). Multiple studies (Malebana and Swanepoel, 2014; Cho and Lee, 2018; Ismail, 2018; Kotha, 2019) also confirm the positive relationship between entrepreneurial growth and success with acquisition of new knowledge, skills and practical business experience. In particular it has been argued that when young inexperienced entrepreneurs assume managerial roles, they do so without the requisite competencies in areas like operations management; inventory management, finance and accounting and business communication (Ncube and Chimucheka, 2019).

As noted in chapter two, knowledge drives creativity, innovation, growth, market expansion and competitive advantage. Knowledge acquisition is realised through learning from mistakes, and tolerance for errors which helps fuel innovation in the new venture (Lumpkin, 2005 and Alawneh, 2009). Thus, operating a new venture without basic knowledge of the industry and markets increase the risk and propensity of failure as the new entrepreneur does not have a clue about the opportunities and inherent difficulties of the his or her target market. Some researchers have attributed the decision to seek business incubation

opportunities to the unique qualities that distinguish highly successful entrepreneurs from ordinary entrepreneurs (Wagener, 2008 and Hachana, 2018). These include the desire to learn and try new things; tenacity, independent thinking; persistence, and strong risk-taking capabilities (Singh and Ratvi, 2013). Using empirical data from Norway, Mongia (2013) established that successful entrepreneurs were extrinsically motivated and determined to pursue their goals right to the end.

### **5.1.3 Resources and business infrastructure**

Despite differences in focus and emphasis, there were significant overlaps between the resource needs of the two groups; especially it comes to financial and technological requirements. Both groups emphasised during interviews that it would be difficult for incubated SMMEs to grow and prosper without equitable access to both capital and relevant business technology. However, other studies (Singh, 2008; Garg, 2014; and Majama and Magang, 2017) have shown that having access to resources does not guarantee SMME growth and sustainability. Rather, what is important is the ability of the business owner or manager to constantly marshal, deploy, review and realign the firm's resources to maximise greater value for clients and to achieve competitive advantage in the preferred industry (Amit and Schoemaker, 2016 and Lorenzo, 2018). Overall, these observations are consistent with the theoretical position of the Resource-Based View which suggests that building and strengthening the resource capabilities of emerging entrepreneurs is critical in ensuring their success and sustainability in the highly competitive global economy.

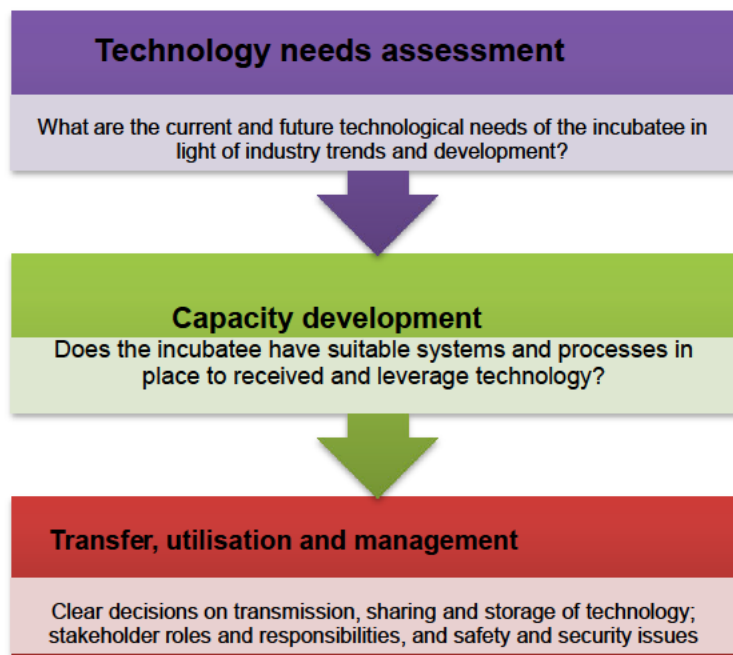
These findings are also supported by Lin, Wood and Lu's (2012) empirical study which found that budding entrepreneurs were more likely to seek and find incubators that provide much-needed resources, including knowledge of business systems and processes. However, as these authors further note, there were disparities in the manner in which resources were provided to the Incubatees. Access to financial resources has also been found to be a daunting challenge for many start-up businesses in South Africa as venture capital is generally inaccessible due to substantial collateral requirements to minimise default risks.

Scarcity of start-up capital compels many emerging SMMEs to finance their operations with such instruments as loans and credit facilities rendered by suppliers. While this may be desirable, however these financial arrangements may lead to high levels of indebtedness

among new ventures, forcing the owner to either reduce or shut down operations prematurely. The terms and conditions of these financing instruments are in most cases incompatible with the financial and operational goals of SMMEs (Rungani and Potgieter, 2018).

#### **5.1.4 Technical support services**

Although there were marked differences between graduates regarding the reasons for joining the Chemin Incubation Programme, one group of participants on both sides agreed that they came to the programme to secure technical support services. Others wanted to learn how to use information technology (IT) to improve online marketing and product distribution processes in their businesses. An empirical study by Leung and Lau (2007) validates this analysis by revealing that technical services are very critical in the infant stage of business venture as the owner may not possess the requisite technical-know of the entire industry where the venture is located. Increased emphasis on providing industry-specific technical support services is a result of the growing concerns about shrinking sales, reduced revenue streams and low returns on invested capital. This analysis is also corroborated by Hausberg and Korreck's empirical study (2020) which found that most incubators were most likely to provide diverse support services to their Incubatees. These services were focused on strengthening not just the operational capacity of Incubatees but also their financial and accounting systems, as well as technological and marketing capabilities. Cravo and Piza (2016) reached similar conclusions, noting that technical support services are positively associated with improved SMME performance and productive capabilities. Incubated SMMEs also gain exposure to high level technical services such as software development and installation, data management, troubleshooting, internet security management, machining and mixing technologies and electronic record-keeping (Leung and Lau, 2007; Rahman, 2015). However, as other researchers have observed (Bubihlela and Van Schaikwyk, 2014, Moos and Sambo, 2018), transferring technology resources and infrastructure to SMME has been very problematic, particularly in emerging economies where the majority of the population does not enjoy equitable access to information technology. The knowledge-driven economy makes it imperative for incubators to transfer and share technology with Incubatees throughout the incubation period. Based on Participants' comments and supporting empirical studies (Bauer and Flagg, 2010; Behane and Grobbelaar, 2018 and Afolayan, 2019), a structured approach for transferring technology to Incubatees can be framed as follows (figure 5.2):



**Figure 5.2 A linear technology transfer process**

**Source: Own creation (2020)**

Figure 5.2 depicts technology transfer as a systematic and rational process that requires proper planning. This means that incubators and SMME owners looking to reap the benefits of technology transfer need to have a clearly defined process for transferring, utilising, managing and protecting vital technology. Effective technology transfer mechanisms are critical for incubated SMME in emerging markets where investment in research and development (R&D) is still relatively low compared to advanced economies (Gunsell, 2015). Some of the Participants highlighted that while access to technology and support services was good during the incubation; however, many Graduates struggled to get additional technical support after graduation; suggesting the need for a more structured approach (figure 5.4) to technology transfer in business incubation programmes. In this regard, the literature (chapter 2) highlighted that the quality of incubation services impacts directly on the outcomes of incubation programmes in all the cases observed; suggesting that high quality services helped prepare Incubatees for success in main markets (Harper-Anderson and Lewis, 2017).

### **5.1.5 Marketing and business networking**

Though not commonly confirmed by all the groups, evidence from the data confirmed that acquiring marketing and business development expertise was one of the fundamental reasons for joining the Chemin Incubation Programme. None of the Participants downplayed the role of marketing and business networking in ensuring success and sustainability of their businesses. The literature affirms these results by showing that start-up ventures often find it difficult to identify and locate profitable market segments for their new products due to limited understanding of marketing as a critical function in the business (Mapila, 2014). With multiple marketing models abound in the market SMMEs owners with limited business background and entrepreneurial competencies are likely to choose inappropriate marketing strategies that could precipitate failure of their businesses (Mapila, 2014). Market sensing capabilities include the ability to predicting market demand; understanding trending of market conditions; and rapid changes in the immediate and broader market environment. Market sensing entails learning and acquiring critical intelligence about the target market – the competitive forces, existing and potential customers; market segmentation; and market development (Ardyan, 2016). It follows therefore that incubated SMMEs need to bolster their marketing capabilities in order to improve revenue generation and competitive advantage in their chosen market segments. A study by Saleh (2015) also corroborates these results by asserting that Incubatees with strong marketing capabilities are able to respond proactively and innovatively to swift technological changes in their industries. Closely aligned to marketing capabilities is business networking capabilities. These have been found to expand a young business's potential to reach new market segments and clients through regular exposure to and interactions with well-established firms in the industry (Demirgil, 2011 and Abbas, 2019).

Despite differences in entrepreneurial needs and growth stage, it was generally agreed that business networking brings ample opportunities for both the entrepreneur and the business. From an incubatee perspective, business networking created space for their new ventures to link up with well-established firms for learning and mentorship. The incubation environment also opened the door to suppliers and agents in the chemical manufacturing industry; thus, broadening opportunities for new contracts and enhanced knowledge of supply chain management practices. These results resonate with the Social Network Theory (chapter 2) which posit that business networking builds social capital necessary to help inexperienced entrepreneurs to engage in shared learning; intergroup support and joint

problem-solving (Karami and Tang, 2019). By entering into a diverse network of organisations, groups, individuals and organisations, an incubatee is able to enter into cooperative and reciprocal relationships that facilitate sharing of ideas, information and technology within the value chain (Eveleens, Van Rijnsoever and Niesten, 2017).

For Graduates, business networking was good for enterprise development (ED); new strategic partners and possible diversification into new product lines or market segments. This finding is supported by the literature which suggests that effective business networking and social interactions creates vital social capital that young, inexperienced entrepreneurs need to grow and sustain their ventures (Patterson, 2015). Similarly, a recent empirical study by (Oberg, 2019) shows that business networks provide ample opportunities for incubated SMMEs to engage in experimentation and innovative activities that result in new products and services. From this analysis, it can be observed that Incubatees and Graduates understood the importance of using business networking to grow their ventures.

## **5.2 Comparison of the perceptions of Incubatees and Graduates towards the Chemin Incubation Programme**

Participants on both sides had different perceptions of the Chemin Incubation Programme. For example, while both groups perceived that the incubation programme played a critical role in skills formation and business development; however, some Incubatees were concerned about the fact that the programme was not easily accessible to potential entrepreneurs seeking to grow their businesses. From the perspective of Graduates, centralisation was not a major issue. Rather, lack of a monitoring system necessary to establish how Graduates are doing after leaving the incubation programme was the problem. Graduates also expressed different opinions when it comes to responsibility for learning. In this regard, it was felt that while the incubator had created learning opportunities for SMMEs, in the end it was the responsibility of each entrepreneur to take full responsibility for their own learning. To a larger extent these observations are consistent with parallel studies on business incubation. For instance, Barnes (2018) found that respondents were highly motivated to take part in SMME support initiatives; which suggested that they understood and appreciated the importance and effectiveness of these programs on nascent firms. These results concur with the idea that SMME owners who have a strong Entrepreneurial Orientation (EO) are more likely to optimise growth and revenue generation in their ventures (Neneh and Van Zyl, 2017). Sound envisioning capabilities enable the

owner to see the bigger picture and to respond favourably to market dynamics and competitive pressures; which cushions the new venture against early demise. Entrepreneurs with strong EO are proactive, innovative and tend to view risk as a challenge rather than a threat to their ventures.

Despite differences in their resource needs, both Incubatees and Graduates were generally receptive of the incubation services rendered by Chemin. None of the Participants disputed the cordial relationship between the Incubator, Graduates and Incubatees. Most of the Participants gave credit to their Incubator for making the programme accessible to disadvantaged entrepreneurs who did not have sufficient start-up capital. The next paragraph compares the perceptions of Incubatees and Graduates on whether the incubation programme met their needs and expectations.

### **5.2.1 Perceptions on programme effectiveness**

There were different perceptions between Incubatees and Graduates regarding the effectiveness of the Incubator services in meeting their learning and business needs. From an incubatee perspective, one of the major advantages of the incubation programme (figure 5.4) is flexibility; which ensures that small businesses from poor communities have access to basic start-up support services. Another positive attribute of Chemin's incubation programme is that it offers diverse and integrated services under one roof, making it fairly easy for SMMEs to gain practical expertise in virtually all the critical aspects of business including marketing and supply chain management. This finding aligns with the observation in the literature that in Brazil, Chile and Trinidad and Tobago, the majority of the Incubatees confirmed receiving assistance that helped them to be innovative and competitive in their markets (Allahar, 2016). However, from a graduate perspective, the programme suffered from several constraints, including delays in obtaining SABS; inadequate communication and limited government involvement reduced both the scope and quality of incubation services. As pointed out during the literature review (chapter 2), service quality is one of the fundamental determinants of programme responsiveness in the eyes of customers. Programme responsiveness is therefore critical if entrepreneurs are to contribute effectively to poverty alleviation, stimulate economic growth, fuel innovation and enhance social cohesion and environmental sustainability (Rashid, 2019). Gonthier and Chirita (2019) found that although the Incubatees were willing to articulate knowledge stemming from their incubation experiences, however, there were no adequate opportunities within the

incubation system that enabled incubation Graduates to share acquired knowledge with their colleagues who are still attending the incubation programme. Investment in both learning and knowledge codification systems was generally limited. An empirical study by Tilana (2015) which assessed the impact of incubation on participating SMMEs discovered that beneficiaries who had successfully graduated from the programme had strong positive perceptions than those who had not finished the programme.

### **5.2.2 Perceptions on the incubation process**

Comparison of the two group's understanding of the incubation process suggests similarities in terms of how incubation services were delivered. Across the groups, it was commonly agreed that incubation process comprises four steps: The first stage is where participants were screened and selected based on such criteria as potential, R1million turnover threshold; involvement of a Champion; and monthly business performance involving a R1000 profit target. Progression to the second stage depended on Participants' commitment to sign the Memorandum of Agreement (MoA). The second stage involved Pre-Incubation, where Participants received training in various speciality areas; including manufacturing of detergents; environmental management, hazardous material handling and storage, bookkeeping and general business management skills. In the third stage, Participants were given various service packages including coaching and mentoring logistics and raw materials; business linkages, information and advice on where to find financial support, for example SEDA and SMME funding institutions and export assistance. The fourth stage was graduation. Indicators of success included financial sustainability of the business and improved performance in terms of market response and profitability. These views were confirmed by secondary data from institutional documents obtained from the Incubator's Website.

### **5.3 Comparisons of the understandings of Incubatees and Graduates on government's decision to fund business incubation initiatives**

The analysis in this section responds to the third objective of the study, namely: to compare the understandings of Incubatees and Graduates on why government should continue funding incubation programmes. The analysis unfolds as follows:

### **5.3.1 Perceptions on funding of business incubation initiatives**

There were marked differences in how Incubatees and Graduates perceived the reasons for government's decision to fund incubation programmes. On the one hand, there were those Incubatees and Graduates who thought that government was bound by legislation to fund business incubation initiatives. This category included mostly "survivalist entrepreneurs" who created business ventures for the sake of supporting their families rather than contributing to Sustainable Development Goals. At the other end of the continuum were a small group of Incubatees and Graduates who thought that government funding was a vehicle to help budding entrepreneurs achieve their long-term financial goals, including profitability, job creation and skills development. These entrepreneurs were mostly likely to fall within the category of "opportunity entrepreneurs" who were more concerned about the "bigger picture" rather than short-term gains.

### **5.3.2 Participants' understanding of their role in the economy**

A comparative analysis of the two groups revealed different but complementary views about the issues that affected their ability to contribute to job creation and poverty alleviation in the economy. From the perspective of Incubatees, limited access to finance and insufficient government support were some of the major barriers to SMME growth and job creation. This finding on the limited role of SMMEs in assisting government to reduce poverty and unemployment is not unique to the chemical manufacturing industry. A recent study by Borat, Asmal Lilenstein and Van der Zee (2018) noted that harnessing and advancing entrepreneurial development as a tool to reduce inequality and unemployment in South Africa has been largely disappointing, as many of the SMMEs fail within the first 3 years of their establishment. From a graduate perspective, SMMEs would assist with job creation if government clarified and enforced the roles of the various stakeholders in the economy, including funders, SMMEs and relevant public institutions. From another angle, it was argued that the limited role of government in the provision of incubation services such as funding curtailed SMME contribution to job creation and skills development in the chemical manufacturing industry. The results on funding difficulties are not unique to South Africa. Other studies show that 27 per cent of SMME do not have equitable access to start-up capital partly due to stringent collateral requirements by mainstream lenders (Rugani and Potgieter, 2018). The overriding concern among Graduates was that collaboration between SMMEs and government should be strengthened through incentives and continuous engagement. The SMME policy environment was perceived to be cumbersome and less

responsive to the needs of Incubatees; as evidenced by delays in SABS certification processes and grant funding.

Notwithstanding these differences of opinion, the majority of Participants appreciated the fact that their companies had to help reduce unemployment and poverty in the country. This understanding is reinforced by the literature which notes that SMMEs are key drivers of economic growth, innovation and employment creation (Lose 2019). Despite differences of opinion, all the Participants acknowledged that they had a responsibility towards helping government to deal with these challenges. However, from a graduate perspective, SMME contributions to economic growth hinges on two preconditions.

There were also different perceptions as to what the role of Incubatees and graduates should be in transforming the industry. For example, while some participants were content with the status quo, others were concerned about the slow progress in transforming the chemical manufacturing industry. In this regard, it was argued that Blacks are still underrepresented in the industry, and that this could be addressed by expediting the implementation of Broad-Based Black Empowerment (BBBEE) policies across the sector rather than the piece-meal approach currently used by government to transform the sector. It was further argued that rescuing and reviving underperforming SMEs requires ongoing research to obtain real-time data on their financial and material needs and use such data to inform design and provision of support services. Some Graduates hinted that incubation teams in their centres had not been adequately trained to provide solutions to complex challenges facing budding entrepreneurs. These data are corroborated by Schutte (2019) who found that in most instances, incubator's managers and personnel did not have adequate entrepreneurial background and lacked the critical skills and enthusiasm necessary to develop young entrepreneurs.

In a similar vein, Muriithi, Juma and Ndegwa's (2018) empirical study noted that inadequately prepared incubation service schemes; weak management practices, misaligned technological support and misuse of allocated financial resources contribute significantly to low performance and stagnation of many start-up ventures. The post-incubation period is particularly important as it requires the newly graduated entrepreneur to be reintegrated professionally back into the business community. In a related study, Van der Spuy (2019) observed that incubation teams should be

competent and well trained to provide the wide range of services that Incubatees need. Morgan and Rochford (2017) suggest that business coaching and mentoring interventions should be differentiated so as to address the diverse learning needs of Incubatees examples include person-to-person, team-based, functional and peer-based mentoring strategies. These development interventions should be characterised by mutual trust, two-way communication; regular engagements and feedback; and the desire to learn from each other. At the personal level, lack of motivation and/or commitment and heavy reliance on government support stifled entrepreneurial orientation and innovation; which are critical if SMMEs are to make a meaningful contribution to sustainable development in the country (Kagiso and Potgieter, 2018). Externally, Graduates struggled to cope with global competition and rapid technological change without adequate transformation and follow-up services from the incubator.

### **5.3.3 Comparison of factors affecting business sustainability**

In comparing the perceptions of Incubatees and Graduates, the study also identified several factors that affected sustainability of incubation programmes. Unsustainable incubation services pose a major risk to both the growth and contribution of SMMEs to employment creation, poverty reduction and skills development in South Africa's economy.

Three major factors influenced the ability of the incubator to continuously develop and support emerging entrepreneurs in the chemical industry: The first issue is the capacity to reach budding SMMEs in remote areas where there is no adequate business infrastructure and resources. The second issue pertains to financing of incubators. In terms of the Seda Technology Programme (STP), funding is subject to each incubator meeting the stipulated business incubation targets. While encouraging good performance, accountability and transparency in the provision of incubation services, however these restrictions compel many incubators to reduce their programme offerings in line with their budgets. This affects both programme responsiveness and client satisfaction. For instance, during interviews, some Participants wished that incubation services be extended to meet the needs of ailing SMMEs beyond the incubation environment. In order for this to happen, the incubator needs to raise additional funds to increase the scope and intensity of its incubation services. The third issue that also threatened sustainability of incubators within the Chemin Environment was limited market research on the development needs of SMME in chemical manufacturing industry. Even though government through its agencies such as SEDA and STP provides a

wide variety of research information on the state of SMMEs in the country, these efforts do not provide adequate empirical data on the unique needs of emerging businesses in the economy. To a larger extent, this underlines the importance of building and strengthening the research capabilities of incubators to reduce perennial dependence on government support. As indicated in chapter two, viability of incubators is critical in the provision of high-quality business incubation services to SMMEs (Buys and Mbewana, 2007a). Innovative strategies are needed to reduce dependence of incubators on government stimulus packages. Empirical evidence suggests that self-sustaining incubation models are the answer to market complexities facing SMMEs in the global economy (Fourie, 2015).

In reflection, the analysis has shown that despite differences of opinion and experience on incubation services; overall both groups (Incubatees and Graduates) benefited from the Chemin Incubation Programme. The only major caveat was inadequacy and/or inconsistency of service provision across the incubator's branches, which was attributed to centralised incubation practices. It was commonly agreed that centralising incubation services would stifle SMME growth and contribution to job creation and poverty alleviation as many of the incubator's centres were not accessible to start-ups in remote areas.

#### **5.4 Conclusion**

Chapter five provided a thematic analysis of the results. On the whole the analysis proved that Incubatees and Graduates were generally receptive towards the Chemin Incubation Programme. None of the Participants disputed the legitimacy, value and integrity of the services provided by the incubator. That said, it is equally important to conclude this chapter by noting that as much as Participants were keen to contribute to the government's socio-economic agenda, however, their ability to do so hinged entirely on availability of sufficient incubation services to propel SMME growth. This point will be clearer as the discussion progresses to the next chapter which concludes the study.

## **CHAPTER SIX**

### **CONCLUSION AND RECOMMENDATIONS**

#### **6.1 Introduction**

The aim of this qualitative study was to provide a comparative analysis of the general perceptions and attitudes of Incubatees and Graduates towards the Chemin Incubation Programme. The findings have shown that despite some differences in certain aspects, Participants in both groups were generally receptive towards incubation services; although major improvements were required in areas like communication, product certification, manufacturing capacity, funding, and diversification of business training programmes. Based on these results, the study concluded as follows.

#### **6.2 Conclusions**

In drawing the conclusions, specific reference is made to the three research objectives that guided the study to ensure consistency throughout the discussion, namely (1) to comparatively analyse the reasons that prompted Incubatees and Graduates join the Chemin Incubation Programme; (2) to compare the perceptions and attitudes of Incubatees and Graduates towards the Chemin Incubation Programme and (3) to compare understandings of Incubatees and Graduates on the government's goal of funding business incubation initiatives. Based on these objectives, the following were the main conclusions of the study.

##### **6.2.1 Research Objective One: To comparatively analyse the reasons that prompted Incubatees and Graduates join the Chemin Incubation Programme**

A comparative analysis of the two groups suggested that participants were motivated by different but complementary reasons to join the Chemin Incubation. On the one hand, there were Necessity Based Entrepreneurs who joined the programme in order secure funding opportunities just to prolong the survival of their entrepreneurial activities. This group of entrepreneurs generally lacked visioning skills which are critical in growing, expanding and

sustaining the business beyond the infant stage. At the other end of the spectrum were Opportunity Based Entrepreneurs (OBE) who saw the Chemin Incubation programme as an ideal opportunity to grow their business. For these entrepreneurs, the Incubation programme enabled them to independently search for and identify and pursue opportunities in their markets. This contrasts sharply with NBEs, who ventured into entrepreneurship because they did not have an alternative option to pursue in their lives; hence the dependence on grant funding. In spite of these differences, however, both groups agreed that the transition from career to entrepreneurship stemmed largely from self-motivation and the desire to make a contribution to job creation, skills development and wealth creation in the South African economy. This reasoning was common across the two groups.

One of the key findings of the study was that most of the Participants had not received strong grounding in chemical manufacturing basics; which prompted them to seek learning and development opportunities in the Chemin Incubation Programme. This group was more interested in gaining knowledge and skills on how to run a chemical manufacturing business. For these entrepreneurs, experiential learning was critical in growing and sustaining their business operations. This thinking is consistent with the knowledge-based view (chapter two, subsection 2.5.1) which posits that some SMMEs are motivated by the desire to constantly learn and improve their knowledge and competencies in ways that optimise profitability and long-term survival of their ventures. The majority of entrepreneurs prefer to learn by doing; which underscores the critical role of experiential learning in incubation services (Mason and Arshed (2013)).

Despite differences in entrepreneurial orientation (i.e. necessity vs opportunity), the majority of participants on both sides agreed that learning, acquisition of essential business skills, procurement opportunities and access to technology were the major reasons that prompted them to join the Chemin Incubation Programme. Consequently, many of them were able to link up with suppliers, industry experts and distributors within the Chemin environment; which helped improve their operations and access to new markets and distribution networks. This finding accords with the principle of Social Network Theory that social capital provides an incubatee with ample opportunities to interact and form strategic partnerships with key industry players; which paves the way to other avenues for the new venture; such technology sharing arrangements and synergies resulting from joint research projects.

On the contrary, other Incubatees and Graduates opted for incubation services because they did not have sufficient start-up capital. As argued in the Resource-based View (chapter two, subsection 2.5.2), access to adequate capital is central to strengthening the financial resource capabilities of newly established businesses. While some of the Participants were generally satisfied with the current funding arrangements within the Chemin Incubation Programme, others were concerned about the rising cost of capital (loans); suggesting that government should provide grants rather than high-interest bearing loans that stifled SMME growth. There were also concerns that the current funding scheme is not responsive to the needs of ailing SMMEs in the chemical manufacturing industry. The overall impression was that financial assistance should not be confined to well-performing SMMEs. Instead, government should extend financial support services to all subsectors of the chemical industry to mitigate the high failure rate among new ventures in South Africa. The growing concern about high SMME failures in the SA economy has also been confirmed by several empirical studies (Fatoki, 2014; Ngcobo and Lekdeo, 2015, Leboea, 2017).

Of particular importance for some Participants was to gain access to technical support services. In both cases, it was established that the incubator had assisted Incubatees and Graduates with a wide variety of technical support services, including product design and testing; product certification with SABS; compliance management and financial reporting. Technological assistance included access to computers; internet facilities, email and customer data base management and online marketing support. While these services were highly appreciated by both groups, however, there were concerns about the informal nature of the technology transfer process; as most of it occurred during simulations and demonstrations on the shop floor; highlighting a need to for a more structured approach to technology transfer.

### **6.2.2 Research Objective Two: To compare the perceptions of Incubatees and Graduates towards the Chemin Incubation Programme**

A comparative analysis of the two groups i.e. Incubatees and graduates, revealed that there were perceptual similarities and differences towards the Chemin Incubation Programme. For example, on the positive side, both groups affirmed that programme was helpful in many respects as it strengthened the resource capabilities of start-up ventures through funding and capacity development. Both sides also agreed that incubation services played a key role in facilitating learning and skills transfer to emerging ventures. Despite these common

understandings, the two groups however differed on programme responsiveness. For some Incubatees, access to incubation services was problematic due to long travelling distance to the incubator centres and lack of information on available SMME support services. On the contrary, some Graduates contended that it was the responsibility of the entrepreneurs themselves to take full responsibility for their own learning rather than depend entirely on the incubator. There was a strong insinuation that SMME owners should have a clear vision of what they want to achieve and constantly look out for opportunities that could be leveraged to achieve that vision. These observations suggest that the quality of entrepreneurs has a significant impact on the success of incubation programmes. As highlighted during literature review, self-motivation, continuous learning and perseverance are some of the key attributes that contribute to success of incubated ventures.

In spite of these contradictory statements, both groups were generally receptive to and appreciative of the incubation programme; suggesting that the programme enjoyed acceptability among beneficiary SMMEs. None of the Participants disputed the value and utility of the Chemin Incubation Programme during the interviews. The positive attitudes towards the Chemin Incubation Programme can be attributed to the fact that the programme provided all basic services under one roof; including business management, finance and accounting, skills development, marketing and business networking. This holistic approach accords with evidence from the literature which showed that most incubators often provide a mix of support services to stimulate growth of SMMEs. This observation also aligns with the resource-based view (chapter two, subsection 2.5.2) that incubation services should include sufficient resource supplies to enhance sustainability of new ventures. Both Incubatees and Graduates also expressed similar views on some of the common challenges that affected their businesses within the incubation programme. The first challenge was delays in obtaining SABS approval and certification for detergent manufacturing facilities. The majority of Participants on both sides affirmed that this constrained their operational capabilities as they could not expand their production lines to serve new markets without a licence. A related challenge was limited manufacturing capacity; which was largely attributed to lack of additional capital investment from the government. There was a strong feeling that government is not doing enough to support emerging SMMEs in the chemical industry; which caused many new ventures to remain in the “survivalist mode.”

### **6.2.3 Research Objective Three: To compare understandings of Incubatees and Graduates on the government's goal of funding business incubation initiatives**

There were mixed reactions to the question on why government funded business; with some incubates and graduates saying that government funding is necessary to stimulate SMME growth in the chemical manufacturing industry; while others saw government funding as being inadequate and sporadic. In this view, limited funding constrained the ability of some Incubatees to expand their operations and support job creation beyond the incubation programme. These contradictory statements suggest the current funding model for Incubatees in the chemical manufacturing industry needs to be reviewed and adjusted to meet the growing demand for financial support services. Insights from the literature confirms that access to financial services is still a major challenge for many start-up ventures in South Africa mainly because these services are often lumped together without considering the unique characteristics and funding requirements of Incubatees (Tembe, 2018 and Tengeh and Choto, 2015). Incubatees and graduates also had different opinions on whether government was doing enough to support incubated SMMEs, there were mixed feelings among Incubatees and Graduates respectively. Affirmatively, it was indicated that government has done relatively well in supporting emerging ventures and that it was up to each individual to take advantage of those opportunities to grow their businesses. The programme provided black owned firms with rare opportunities to acquire business expertise with minimal cost. Conversely, it was indicated that government's role in supporting business incubation initiatives remains largely inadequate, intermittent and uneven across the chemical manufacturing industry. In particular, centralisation of incubation services prevented many potential Incubatees from accessing the incubation programme. Despite differences of opinion on government's goal of financing business incubation, however both groups agreed that government should decentralise provision to ensure equitable access to these services. From the perspective of opportunity entrepreneurs, assisting government to create jobs and alleviate poverty is what motivated many of the SMME owners to pursue entrepreneurship. By contrast, necessity entrepreneurs felt strongly that government was mandated by legislation to provide financial assistance to small and micro enterprises; suggesting that some of the entrepreneurs on the Chemin Programme had a survivalist mentality; which prevents many budding entrepreneurs from growing and expanding their ventures beyond the nascent stage.

Concerning the preferred mode of contribution, for example financial or otherwise; Participants differed across the spectrum; with the majority of Incubatees and graduates agreeing that non-financial contributions such as skills development and mentoring were better options to help start-up businesses gain footing in the chemical manufacturing industry. Interestingly, many of the participants on both sides emphasised the need to channel resources to youth entrepreneurship. In particular, it was felt that early exposure of young people to entrepreneurship could help mitigate South Africa's dismal record on SMME formation and success; which compares poorly with other. This means that incubators should give young entrepreneurs because early exposure of young people to entrepreneurship could help mitigate South Africa's dismal record on SMME formation and success; which compares poorly with other.

#### **6.2.4 Knowledge contributions**

Based on the analysis, literature and subsequent conclusions, this study contributes to extant knowledge on business incubation in three areas, namely: entrepreneurship theory; incubation management practice and, more importantly, policy design and implementation at sectoral level. Following is a brief outline of the proposed knowledge contributes in each of these three areas.

##### **6.2.4.1 Entrepreneurship theory**

One of the key revelations of the study in chapter five was that necessity entrepreneurs could not make a significant contribution to social and economic development due to limited resource capabilities. To this end, the study argues that in order for these entrepreneurs to engage effectively with entrepreneurial experimentation, opportunity identification and venture development during the incubation period, they need to be adequately capacitated. Most importantly, the study refocuses attention away from generic learning models of incubators to the critical role that customised learning and knowledge sharing systems play in improving and strengthening the entrepreneurial capabilities of Incubatees to proactively detect and respond strategically to opportunities in their markets. Rather than focus on programme implementation processes, this study directs attention to the interface between Incubatees, Graduates and the incubator team and how this interface advances or constrains collaborative venture creation practice within and beyond the incubation environment. This is particularly important as some of the interviewed Graduates raised

concerns about lack of an effective exit strategy to assist ailing SMMEs post the incubation period. In this way the study also enhances understanding of how incubatee management practices affect service provision in business incubation centres.

#### **6.2.4.2 Business incubation management practice**

At the organisational level, the study proposes a systematic and structured approach to facilitate effective transfer of technology resources and infrastructure to Incubatees. One of the key findings of the study was that technology transfer was considered to be inadequate and uneven across the participants; suggesting a lack of a systematic approach to technology transfer. Given this situation the study calls for proper planning of technology sharing mechanisms between the incubator and the incubated SMMEs. Ideally, this should form part of professional incubation management practice to reduce duplication and inconsistencies across business incubation centres. This proposal is consistent with the linear technology transfer model suggested in figure 5.7 in chapter five. Sufficient and evenly spread technology transfer is critical as both Incubatees and Graduates face increasing pressure from funders, customers and global competition to offer high quality products and services comparable to those offered by established firms in the chemical industry.

#### **6.2.4.3 Business Incubation Policy**

At the policy level, the study advances two potential innovations to help improve formulation and implementation of business incubation policy specifically in the chemical manufacturing industry; which is the primary focus of this investigation. The first initiative entails increasing investment in policy research; which must also include capacitation of policy analysts and researchers within the government sector. The second initiative entails an overhaul and realignment of the entire SMME support system in the chemical manufacturing sector so that it caters for all SMMEs including those facing imminent extinction in the industry.

### **6.3 Implications and Recommendations**

#### **6.3.1 Implications**

An important revelation from the results was that seeking assistance with the Chemin Incubator was driven by opportunity and necessity. Given the persistent challenges of poverty and unemployment; government should focus more attention on opportunity entrepreneurs. Also, there were no reservations about the value of the Chemin Programme

in empowering Incubatees with skills, resources and technology to succeed in their ventures. To a larger extent, this suggests that the programme enjoyed some legitimacy in the eyes of Incubatees and Graduates. Collaborative efforts between government and entrepreneurs to reduce poverty and unemployment were limited due to, firstly, lack of understanding about the specific role that entrepreneurs were expected to play in this process, and secondly, the inadequacy of support from the Incubator. Contributions to socio-economic development varied across Graduates. Exemplary initiatives undertaken included funding youth entrepreneurship; training budding entrepreneurs; enterprise development and job creation. While commendable, these initiatives are limited; suggesting a need for coordinating the contributions of entrepreneurs to social and economic development in South Africa.

### **6.3.2 Recommendations**

#### **6.3.2.1 Prioritise support for opportunity entrepreneurs**

The results demonstrated that in order for SMMEs to contribute effectively to job creation and poverty alleviation, policy initiatives should prioritise the resource needs of opportunity entrepreneurs, as they have a positive disposition towards business growth and sustainability. This requires reprioritisation of spending to ensure that short-term oriented Incubatees are separated from long-term oriented Incubatees on the Incubation Programme. Preferably, incubators should give more support to young, energetic and goal-oriented entrepreneurs.

#### **6.3.2.2 Place survivalist entrepreneurs in government-led projects**

Given that some Incubatees expected short-term gains in the incubation programme, it would be proper for government to place these entrepreneurs in special projects rather than long-term SMME development programmes. With time, necessity entrepreneurs who successfully transcend the “survivalist mode” may then be referred to long-term incubation programmes.

#### **6.3.2.3 Track and monitor Graduates after incubation**

One of the concerns raised by Participants was that currently there is limited information on how Graduates perform after leaving the incubation programme. This problem can be

addressed by setting up an ICT-based graduate tracking system to provide real time data and live updates on how Graduates are progressing beyond the incubation programme. Implemented well, this platform should encourage close interactions between Chemin and Graduates and provide opportunities for resource sharing.

#### **6.3.2.4 Explore opportunities to adapt incubation funding model**

The analysis revealed that some of the Incubatees could not afford to repay loans due to high interest; which limited access to funding opportunities. This can be addressed by broadening funding options to include a mix of loans, grant funding and tailored financial advisory services.

#### **6.3.2.5 Leverage digital technology to enhance incubatee learning**

From the results, it is evident Incubatees and Graduates have different learning needs at various stages of the business cycle. For this reason, it is imperative that content and learning methods be varied to accommodate the vast differences in skills backgrounds of Incubatees. This can be achieved through the use of flexible digital learning tools such as virtual peer-to-peer networks to facilitate personalised and intergroup learning and knowledge sharing between Incubatees and Graduates.

#### **6.3.2.6 Encourage self-development among Incubatees**

The results suggest that some Incubatees lacked the motivation to learn and grow professionally prompting dependence on the incubator and the government for financial support. This can be mitigated by creating an enabling environment that encourages self-learning, peer learning and information sharing.

#### **6.3.2.7 Capacitate incubation teams across departments**

Some of the Participants hinted that their mentors lacked the requisite competences to deliver incubation services in their centres. To function well, incubation teams need to be properly trained and given the necessary information so that they can be able to provide high quality incubation services to Incubatees. This should form part of the incubator's human resource development plan to ensure consistency across incubation centres.

#### **6.4 Limitations of the study**

One of the major limitations of this research is that the sample size was relatively small as only 12 participants were purposively selected for data collection. Non-probability sampling is generally confined to obtaining relatively small samples that may not adequately reflect what is happening in the larger population to some extent, this affected both the scope of analysis and transferability of the results. Data saturation meant that the scope of the analysis had to be reduced in line with available data. Access to current performance reports needed to enable analysis and validation of the results was also problematic as some of the participants were reluctant to disclose information that relate to competitive strategies of their businesses. Lack of adequate literature on the perceptions and attitudes of Graduates and Incubatees was another limitation of the study; suggesting a need for further investigation to look into the quality of incubation programme outcomes and client satisfaction.

#### **6.5 Conclusion and Future Research**

This study evaluated the general perceptions and attitudes of Incubatees and Graduates towards the Chemin Incubation Programme. Given that case study research is context-specific, the results were generalised within the chemical manufacturing industry. Ideally, future research should examine the performance of Graduates post the incubation experience. Ideally, this analysis should also explore opportunities for self-sustaining incubation models. Overall, the study has shown that Incubatees and Graduates had different but complementary perceptions towards the Chemin Incubation. Across the board, perceptions were generally positive with most Participants affirming the benefits of the incubation programme for SMMEs. Hopefully, the interventions above will assist incubators in improving both the design and delivery of business incubation initiatives necessary to stimulate growth and Incubatees and survival of SMMEs in the chemical manufacturing industry.

## References

- Abbas, J. 2019. The impact of entrepreneurial business networks on firm's performance through a mediating role of dynamic capabilities. *Sustainability* 11, 3006. *Doi:10.3390/su11113006*
- Afolayan, A.O. 2019. *Adoption of new Information and Communications Technology innovation by SMMEs in Cape Town*. A Dissertation submitted to Cape Peninsula University of Technology.
- Agee, J. 2009. Developing qualitative research questions: A reflective process. *International Journal of Qualitative Studies in Education* Volume 22 Issue, 431-447.
- Anderson, C. 2010. Presenting and evaluating qualitative research. *American Journal of Pharmaceutical Journal*. 74 (8), 141.
- Alawneh, A. 2009. *The role of knowledge management in enhancing the competitiveness of small and medium-sized Enterprises*: Communications of the IBIMA Volume 10. Available from: <https://www.researchgate.net> [Accessed 28 March 2020].
- Ardyan, E. 2016. Market sensing capability and SMEs performance: The mediating role of product Innovativeness success. *DLSU Business and Economics Review* 25(2), 79-97
- Allahar, H. and Brathwaite, C. 2016. Business incubation as an instrument of innovation: The experience of South America and the Caribbean. *International Journal of Innovation*. Sao Paulo 4(2), 71-85
- Ayatse, F.A. 2017. Business incubation process and firm performance: An empirical review. *Journal of Global Entrepreneurship Research* 7(2), 1-8
- Allahar, H. & Brathwaite, C. 2016. Business incubation as an instrument of innovation: the experience of South America and the Caribbean *International Journal of Innovation*, 4 (2), 71-93
- Alkhathami, A. 2016. *Business Incubation in Saudi Arabia: An Empirical Investigation into the Effects of Business Incubators on New Venture Creation*. Available at: [https://www.une.edu.au/\\_\\_data/assets/pdf\\_file/0004/378337/AliAlkhathami-Poster1.pdf](https://www.une.edu.au/__data/assets/pdf_file/0004/378337/AliAlkhathami-Poster1.pdf) (Accessed on 11 November 2021).
- Ayatse, F.A., Kwaha, N. & Akuraun, S. 2017. Business incubation process and firm performance: An empirical review, *Journal of Global Entrepreneurship Research*, 7(2) 1-17

- Ahmad, A.J. and Thornberry, C. 2016. On the structure of business incubators: de-coupling issues and the mis-alignment of managerial incentives. *J Technol Transf* DOI 10.1007/s10961-016-9551-y
- Alamri, W.A. 2019. Effectiveness of Qualitative Research Methods: Interviews and Diaries. *International Journal of English and Cultural Studies* 2(1) 65-70
- Al-Mubarak, H.M. & Buslerr, M. 2017. Challenges and opportunities of innovation and incubators as a tool for knowledge-based economy. *Journal of Innovation and Entrepreneurship* 6(15), 1-18
- Behane, T. and Grobbelaar, S.S. 2018. The process of intra-firm technology transfer: A case study of a marine mining company. *South African Journal of Industrial Engineering* Volume 29 No.1 1-9.
- Alert, S. 2015. *SME sustainability and growth should be an obsession for job creation in South Africa*. In Alert, S. (ed) 1ed: Business Environment Specialists.
- Alsheikh, A.M. 2009. *Business Incubation and Economic Development*. Management University of Surrey.
- Argyriou, E. and Melewar, T.C. 2011. Consumer attitudes revisited: A review of Attitude Theory in Marketing Research. *International Journals of Management Reviews* 13(1), 431-431
- Babbie, E.R. 2014. *The basics of social research*. Belmont CA: Wadsworth, Cengage Learning.
- Basu, R. and Biswas, D. 2013. A Study on Indian Higher Educational Institute based Business Incubators. *Journal of Enterprising Culture*.
- Bezuidenhout, R.C.J. 2018. *A critical analysis of small businesses in Gauteng before and after the B-BBEE Intervention*. A Thesis submitted to the University of Pretoria.
- Barugahara, F., Maumbe, B. & Nzaro, R. 2019. Developing a Business Incubator Model for an Entrepreneurial University: The Case of Bindura University of Science Education. *Journal of Small Business and Entrepreneurship Development*, 7(2), 73-85
- Benoot, C., Hannes, K. and Bilsen, J. 2016. The use of purposeful sampling in a qualitative evidence synthesis: A worked example on sexual adjustment to a cancer trajectory. *BMC Medical Research Methodology* 16(21), 1-12
- Bubihlela, J. and Van Schaikwyk, P.J. 2014. Small business incubation and the entrepreneurial business environment in South Africa: A Theoretical Perspective, *Mediterranean Journal of Sciences* 5(23), 264-269.

Bushe, B. 2019. The causes and impact of business failure among small to micro and medium enterprises in South Africa. *Africa's Public Service Delivery and Performance Review* 7(1), a210.

Bauer, S.M. and Flagg, J.L. 2010. Technology transfer and technology intermediaries. *Journal Name here* 6 (1), 129-150.

Bhorat, H., Asmal, Z. Lilenstein, K. and Van der Zee, K. 2018. *SMMES in South Africa: Understanding the constraints on growth and performance*. Development Policy Research Unit Working Paper 201802. DPRU, University of Cape Town.

Bruwer, J. and Coetzee, P. 2018. A literature review of the sustainability, the managerial conduct of management and the internal control systems evident in South African small, medium and micro enterprises. *Problems and Perspectives in Management*, 14(2), 201-211.

Blok, V. 2014. Understanding Management Practices in Business Incubators: Empirical Evidence of the Factors impacting the incubation process. *International Journal of Innovation and Technology Management* 14 (04)

Buyts, A. 2007a. Key success factors for business incubation in South Africa: The Godisa case study. *South Africa Journal of Science* 103(9): 356-358

Buyts, A. and Mbewana, P. 2007b. A key success factors for business incubation in South Africa: The Godisa Case Study. *South African Journal of Science*, 103, 356-358

Bhabra, R.K. 2014. *An examination of growth stages and factors affecting the performance of business incubators*. The Case of Australia. Doctoral thesis submitted to Wollongong, CPA: Australia

Bone, J. 2017. *Business incubators and accelerators: The rational picture*. BEIS Research papers.

Barney, J., Ketchen, D. and Wright, M. 2011. The future of resource-based theory: Revitalisation or decline? *Journal of Management* 37(5), 1299-1315.

Barnes, B.C. 2018. *The observed disposition by small, medium and micro enterprises on incubated business support in South Africa*. A Thesis submitted to the University of the Witwatersrand, Johannesburg.

Berendsen, G. and Beckett, R.C. 2018. Business models within business models: Two incubator case studies. Available at: <https://indietopia.org/wp/> [Accessed 17 April 2020].

Bird, D.K. 2009. The use of questionnaires for acquiring information on public perception of natural hazards and risk mitigation – A review of current knowledge and practice. *Nat. Hazards Earth Syst. Sci.* 9, 1307-1325

- Briggs, K.A.H. 2016. *Travels of business incubators: Exploring entrepreneurship support from an Embeddedness perspective in Uganda and Tanzania*. A Dissertation submitted to Chalmers University of Technology, Gothenburg, Sweden.
- Bone, J., Gonzalez-Uribe, Haley, C. and Lahr, H. 2019. *The impact of business accelerators and incubators in the UK* Available at: <https://assets.publishing.service.gov.uk/> (Accessed 9 November 2021)
- Blok, V., Thijssen, S. & Pascucci, S. 2017. Understanding Management Practices in Business Incubators: Empirical Evidence of the Factors Impacting the Incubation Process. *International Journal of Innovation and Technology Management* 14 (4), 1-23
- Bowmaker-Falconer, A. & Herrington, M. 2020. *Igniting start-ups for economic growth and social change* Global Entrepreneurship Monitor South Africa (GEM SA) 2019/2020 report
- Cullen, M., Calitz, A. and Chandler, L. 2014. Business Incubation in the Eastern Cape: A Case Study. *International Journal for Innovation Education and Research* www.ijer.net Vol.2-05, 2014
- Campbell, C., Kendrick, R. and Samulson, D. 1985. Stalking the latent entrepreneur. *Economic Development Review* 3(2), 43-48.
- Cravo, T.A. and Piza, C. 2016. *The impact of business support services for small and medium enterprises on firm performance in Low- and Middle Income Countries. A Meta-Analysis* IDB Working Paper Series No. IDB-WP-70 Inter-American Development Bank.
- Cassim, S. 2001. *The South African Business Incubation Experience: An exploratory assessment*. Durban: University of KwaZulu-Natal
- Cassim, S. 2001. *The South African Business Incubation Experience: An exploratory Assessment*. Durban: University of KwaZulu-Natal.
- Chandra, A. 2012. Business Incubation in Chile: Development, Financing and Financial Services. *Journal of Technology Management and Innovation Volume 7 Issue 2, 1-13*.
- Chemistry Incubator 2011-2012 Annual Report. Available at: <http://www.chemin.co.za/> [Accessed 18 May 2016]
- Cheru, F. 2010. *Overcoming Apartheid legacy: The Ascendancy of Neoliberalism in South Africa's anti-poverty strategy*. Third World Quarterly.
- Chimucheka, T. and Mandipaka, F. 2015. Challenges faced by small, medium and Micro Enterprises in the Nkonkobe Municipality. *International Journal of Economics and Business Research* 14(2), 309-316

- Chiloane-Tsoka, E. and Boya, K.S. 2014. An exploration of strategic competitiveness of SMMEs: A South African Perspective. *Problems and Perspectives in Management*, 12(4), 347-354.
- Chimucheka, T. 2014. Entrepreneurship Education in South Africa. *Mediterranean Journal of Social Sciences* 5(2), 403-416.
- Chimonna, E. 2015. Women in Action: Challenges facing women entrepreneurial in the Gauteng Province of South Africa. *International Business and Economics Research Journal* 14(6), 835-850
- Cho, Y.H. and Lee, J. 2018. Entrepreneurial orientation, entrepreneurial education and performance. *Asia Pacific Journal of Innovation and Entrepreneurship*. ISSN: 2398-7812.
- Copley, P. 2011. *Marketing learning and development in SMEs: Support for experiential and critical learning styles*. Available from: <https://www.researchgate.net> [Accessed 28 March 2020].
- Collins, D. 2003. Pretesting survey instruments: An overview of cognitive methods. *Quality of Life Research Volume 12*, 229-238
- Corradi, A.A. 2013. *Critical Learning Episodes in the Evolution of Business Start-ups: Business Incubators in South-Eastern Brazil*. A Dissertation submitted to Erasmus University Rotterdam.
- Cooney, T.M. 2012. *Entrepreneurship skills for growth-oriented businesses*. Dublin Insitute of Technology: Report for the Workshop on Skills Development for SMEs and Entrepreneurship, Copenhagen, 28 November 2012.
- Cooper, D.R. and Schindler, P.S. 2003. *Business Research Methods*. Boston: McGraw-Hill Irwin,
- Creswell, J.W. 2014. *Research design*. Carlifonia: Sage Publications
- Dam, T.H.Y. 2011. *SMEs with business incubator models and implotations in Vietnam*. Master of public policy/Economics Development, KDI
- Dladla, S.C. and Zondo, R.W.D. 2016. Factors influencing operational performance for SMMEs in the textile and clothing manufacturing sector in EtheKwinin District. A Dissertation submitted to the Durban University of Technology.
- Department of Trade and Industry 2012. *Integrated Strategy on the Development and Promotion of Co-operatives: Promoting an integrated Coperative Sector Africa*. Pretoria: DTI.
- De Jongh, J., Ferreira, S., Kickason-Koekemoer, Z. and Sunde, T. 2020. A Non-Parametric Analysis on the Impact of Technical DFI Support on SMME Development: Evidence from

the Gauteng Province, South Africa. *Asia-Pacific Social Science Review* 20(1) 2020, pp. 1–16

Del Vecchio, P. and De Maggio, M. 2016. *Technology-Driven Entrepreneurship within the Framework of Regional Development Policies* In book: *Creating Technology-Driven Entrepreneurship* pp.273-299. DOI:10.1057/978-1-137-59156-210

Department of Trade and Industry 1995. *The White Paper on National Strategy for the Development and Promotion of Small Business in South Africa*. Pretoria: Government Printers.

Demirgil, H. (2011). *Networking activities and growth of newly founded firms under incubation*. Munich Personal RePEc Archive. MPRA Paper No.46575.

Dee, N., Gill, D., Lacher, R. Livesey, F. and Marshall, T. (2012). *A review of research on the role and effectiveness of business incubation for high growth start-ups* [https://www.repository.cam.ac.uk/bitstream/handle/1810/297114/12\\_01\\_dee\\_minshall.pdf?sequence=1&isAllowed=y](https://www.repository.cam.ac.uk/bitstream/handle/1810/297114/12_01_dee_minshall.pdf?sequence=1&isAllowed=y) (Accessed on 17 November 2021)

Elder, S. 2009. *ILO school-to-work transition survey: A methodological guide*. International Labour Organisation, Geneva, Switzerland.

Eveleens, C.P. 2017. How network-based incubation helps start-up performance: A systematic review against the background of management theories. *The Journal of Technology Transfer* Volume 42, 676-713

Eyisi, D. 2016. The usefulness of qualitative and quantitative approaches and methods in researching problem-solving ability in science education curriculum. *Journal of Education and Practice*, 15 (1), 91-100.

Eveleens, C.P., Van Rijnsoever, F. & Niesten, M.M.I. 2017. How network-based incubation helps start-up performance: a systematic review against the background of management theories. *The Journal of Technology Transfer* 42 (1), 676–713

Eze, U.C. 2013. *Perspectives of SMEs on knowledge sharing*.

Emerald Insight. Available from: <https://www.emerald.com/insight> [Accessed 28 March 2020].

Fatoki, O. 2014. The causes of the failure of new small and medium enterprises in South Africa. *Mediterranean Journal of Social Sciences* 5(20), 922-927.

Fenge, L.A. 2019. The impact of sensitive research on the researcher: Preparedness and Positionality. *International Journal of Qualitative Methods*. Available from: <https://journals.sagepub.com> [Accessed: 10 March 2020].

- Fleming, J. 2018. Recognising and resolving challenges of being an insider researcher in work-integrated learning. *International Journal of Work-Integrated Learning. Special Issue, 19(3) 311-320*
- Fourie, P. 2015. *Benefits of self-sustaining business incubation*. A Dissertation submitted to the Gordon Institute of Business Science, University of Pretoria.
- Fusch, P.I. and Ness, L.R. 2015. Are we there yet? Data saturation in qualitative research. *The Qualitative Report 2015 Volume 20, Number 9, 1408-1416*. <http://www.nova.edu/ssss/QR/QR20/9/fusch1.pdf>
- Gajic, N. and Booklaky, M. 2015. *Impact of technical support on customer satisfaction: Case of Automotive Paints*. Available from: <https://journals.sagepub.com> [Accessed 23 March 2019].
- Graham, I. 2010. *Developing a replicable and sustainable model of business incubation*. *Technology Innovation Management Review*. Available from: <https://timreview.ca/article/395> [Accessed 11 April 2020].
- Gale, N.K. 2013. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Med Res Methodology 13, 117*.
- Garcia-Gutierrez, I. and Martinez-Borreguero, J. 2016. The innovation Pivot Framework: Fostering Business Model Innovation in Start-ups, *Research-Technology Management, Volume 59, Issue 5, 48-56*.
- Garg, R. 2014. An exposition of resource capabilities for SMEs in the emerging markets. *South African Journal of Economic and Management Sciences Volume 17 No.17 No.1-8*
- Gassmann, O. and Becker, B. 2006. Towards a resource-based view on corporate incubators. *International Journal of Innovation Management 10(1), 19-45*
- Gentles, S.J., Charles, C., Ploeg, J. and McKibbon, K. 2015. *Sampling in qualitative research: Insights from an overview of the methods Literature*. *The Qualitative Report, 20 (11), 1772-1789*
- Given, L.M. 2008. *Research setting*. In: *The Sage Encyclopaedia of Qualitative Research Methods*. Encyclopaedia. Available from: <https://methods.sagepub.com> [Accessed 10 March 2020].
- Greene, M.J. 2014. On the Inside looking in: Methodological insights and challenges in conducting qualitative Insider Research. *The Qualitative Report Volume 19, Article 15, 1*
- Goldkuhl, G. 2012. Pragmatism vs interpretivism in qualitative information systems research. *European Journal of Information Systems Volume 21, Issue 2, 135-146*.

- Gonthier, J. and Chirita, G.M. 2019. The role of corporate incubators as invigorators of innovation capabilities in parent companies. *Journal of Innovation and Entrepreneurship, Volume 8, Number 8, 1-15*
- Gordan, P. 2016. Budget Speech. Pretoria: Government Printers.
- Gunsel, A. 2015. Research on effectiveness of technology transfer from a knowledge based perspective. 11<sup>th</sup> International Strategic Management Conference 2015. *Procedia – Social and Behavioural Sciences, 207, 777-785*
- Gwena, C. and Chinyamurundi, W.T. 2018. Effects of knowledge management on innovation capabilities amongst small and medium enterprises in South Africa: The case of Buffalow City Metropolitan Municipality. *Southern Africa Journal of Entrepreneurship and Small Business Management 10(1), a177*
- Guest, G., Namey, E. and Chen, M. 2020. A simple method to assess and report thematic saturation in qualitative research *PLoS One 15(5): e0232076*.
- Ganamotse, G.N., Samuelsson, M., Abankwah, R.M. Anthony, T. and Mphela, T. 2017. The Emerging Properties of Business Accelerators: The Case of Botswana, Namibia and Uganda Global Business Labs. *Journal of Entrepreneurship and Innovation in Emerging Economies 3(1) 16–40 SAGE Publications*
- Gustafsson, J. 2017. Single case studies vs. multiple case studies: A comparative Study Gustafsson. Halmstad University, Sweden.
- Hausberg, J.P. and Korreck, S. 2020. Business incubators and accelerators: a co-citation analysis-based, systematic literature review. *Journal of Technology Transfer 45(1), 151-176*.
- Hillemane, B.S.M., Satyanarayana, K. and Chandrashekar, D. 2019. Applying the ecosystem model in a new context? The case of business incubation in Oman Technology business incubation for start-up generation: A literature review toward a conceptual framework. *International Journal of Entrepreneurial Behaviour and Research 25(7), 1471-1493*.
- Hackett, S.M. and Dilts, D.M. 2004a. A Systematic Review of Business Incubation Research. *The Journal of Technology Transfer 29(1), 55-82*.
- Hackett, S.M. and Dilts, D.M. 2004b. A real option-driven theory of business incubation. *The Journal of Technology Transfer, 29(1), 41-54*
- Harper-Anderson, E. and Lewis, D.A. 2017. What makes business Incubation work? Measuring the influence of Incubator Quality and Regional capacity on Incubator outcomes Available at: <https://journals.sagepub.com> (Accessed 17 November 2021)

- Harrison, H., Birks, M., Franklin, R. and Mills, J. 2017. Case study research: Foundations and methodological orientations. *Forum: Qualitative Research. Volume 18(1)*, 1-8.
- Heale, R. and Twycross, A. 2015. *Validity and reliability in quantitative studies. Evidence-Based Nursing 18(3)*, 66-67.
- Hausberg, J.P. and Korreck, S. 2018. Business incubators and accelerators: A co-citation analysis-based systematic literature review. *The Journal of Technology Transfer 45(1)*, 151-176.
- Hennink, M.M. and Kaiser, B.N. 2019. *Saturation in Qualitative Research*. DOI: <http://dx.doi.org/10.4135/9781526421036822322>
- Hilton, C.E. 2015. The importance of pretesting questionnaires: A field research example of cognitive pretesting the exercise referral quality of life scale. *International Journal of Social Research Methodology 1(1)*, 21-34
- Hoffman, K. 2018. Small firms, Research and Development, Technology and Innovation in the United Kingdom: A Literature Review. *Technovation 18(1)*, 39-55
- Hurst, S. 2015. Pretesting qualitative data collection procedures to facilitate methodological adherence and team building in Nigeria. *International Journal of Qualitative Methods Volume 14*, 53-64
- Hung, Y., Cant, M.C. and Wild, J.A. 2016. The importance of human resource management for small businesses in South Africa. *Problems and Perspectives in Management 14(3)*, 232-238
- Hughes, M., Ireland, R. and Morgan, R. 2007. Stimulating dynamic value: Social capital and business incubation as a pathway to competitive success. *Long Range Planning, 40 (2)*, 154-177
- Ismail, Z. 2018. *The impact of entrepreneurship training programmes*. United Kingdom Department for International Development.
- Idris, M.M. 2018. The contribution of entrepreneurial learning towards entrepreneurial passion and entrepreneurial action choice of vocational students. 2<sup>nd</sup> International Conference on Statics, Mathematics, Teaching and Research. IOP Conference Series: *Journal of Physics: Conference Series 1028*.
- Ikebuaku, K. and Dinbabo, M. 2018. Beyond entrepreneurship education: business incubation and entrepreneurial capabilities. *Journal of Entrepreneurship in Emerging Economies, 10(1)*: 154-174.

Indiran, L., Khalifah, Z., Ismail, K. 2017. The challenges of business incubation: a case of Malaysian Incubators. IEBMC 2017 8<sup>th</sup> International Economics and Business Management Conference <https://dx.doi.org/10.15405/epsbs.2018.07.02.51>

Iwu, C.G. 2016. The unique role of the survivalist retail entrepreneur in job creation and poverty reduction. Implications for active stakeholder participation. *Acta Universitatis Danubias Economica Volume 12 No.4, 1-10.*

Iwu, C.G. 2018. The Necessity for education and training within the survivalist retail entrepreneurship sector. *Journal of Economics and Behavioural Studies Volume 8, No.2, 56-64*

Jamil et al., 2016. Business Incubation in Asian Developing Countries. *International Review of Management and Marketing*, 6(4) 291-295.

Kakila, C. 2021. *Strengths and Weaknesses of Semi-Structured Interviews in Qualitative Research: A Critical Essay*. DOI:10.20944/preprints202106.0491.v1

Kagiso, N.P. and Potgieter, M. 2018. *Developmental requirements for SMMEs in the Mahikeng Area*. An MBA Dissertation submitted to the North West University

Kagiso, N.P. and Potgieter, M. 2018. *Challenges hampering SMME development in Mahikeng*. Conference: Celebrating 30 Years of Research-inspired Management Advancement, Southern African Institute of Management Scientists (SAIMS) 30<sup>th</sup> Conference, at Stellenbosch, South Africa September 2018

Karlsson, M. 2016. *What is a case study*. Academy of business, Engineering and Science, Halmstad University Halland, Sweden.

Kasase, W.K. 2017. *Business incubators in Zambia: A study of the impact on the growth of small business*. A Thesis submitted to the Graduate School of Business, University of Cape Town.

Kasase, W. K. 2017. *Business Incubators in Zambia: A study of the Impact on the Growth of Small Businesses*. Thesis, MCOM in Development Finance. University of Cape Town, South Africa.

Klaasa, P. 2018. *Incubation framework for a new start-up: A case study in Thailand*. Proceedings of the International Conference on Industrial Engineering and Operations Management Bandung, Indonesia, March 6-8, 2018.

Khalid, F.A. 2010. *Current practice of business incubation process elements in Malaysian ICT Incubators*. RMIT University School of Management Building, Melbourne.

- Kaplan, S. 2001. *Knowledge-based theories of the firm in strategic management: A Review and Extension*. Submission to the Academy of Management Review. Available from: <https://www.researchgate.net> [Accessed 23 March 2020].
- Karami, M. and Tang, J. 2019. Entrepreneurial orientation and SME international performance: The mediating role of network capability and experiential learning. *International Small Business Journal: Researching Entrepreneurship*. Available from: <https://journals.sagepub.com/> [Accessed 28 March 2019].
- Kavhumbura, V.O. 2014. *Beyond Godisa: Critical Success factors for Business Incubators in South Africa*. A Thesis submitted to the University of the Witwatersrand, Johannesburg.
- Jelsma J. and Clow, S. 2005. Ethical issues relating to qualitative research. *South African Journal of Physiotherapy* 61(1), 3-6
- Johnson, M. P. and Schaltegger, S. 2019. *Entrepreneurship for sustainable development: A review and multilevel causal mechanism framework: Entrepreneurship Theory and Practice*. Available from: <https://journals.sagepub.com> [Accessed 3 April 2020].
- Kasase, W.K. 2017. *Business incubators in Zambia: A study of the impact on the growth of small businesses*. A Thesis submitted to the Graduate School of Business, University of Cape Town.
- Kellermanns, F. 2016. The resource-based view entrepreneurship: A content-analytical comparison of researchers' and entrepreneurs' views. *Journal of Small Business Management* 54(1), 26-48.
- Kemp, P. 2013. *The influence of business incubation in developing new enterprises in Australia*. Available from: <https://ro.ecu.edu.au/theses/864> [Accessed 12 April 2020].
- Kerr, S.P, Kerr, W.R. and Xu, T. 2017. *Personality traits of entrepreneurs: A Review of Recent Literature*. Working Paper 18-047. Harvard Business School.
- Kinias, I.G. 2013. The importance of the entrepreneurial background in the detection and the utilisation of the information. The 2<sup>nd</sup> International Conference on Integrated Information. *Procedia – Social and Behavioural Sciences Issue 73 (2013)*, 564-572
- Kinoti, A. and Struwig, M. 2011. An evaluation of the entrepreneur's perception of Business-Incubation Services in Kenya. *International Journal of Business Administration* Volume 2 Issue 4, 112-121.
- Krige, D. 2018. *It's not just about the money: What drives great entrepreneurs?* USB Management Review. Available from: <https://www.usb.ac.za/usb> [Accessed 12 April 2020].

- Koster, S. and Anderson, M. 2018. When is your experience valuable? Occupation-industry transitions and self-employment success. *Journal of Evolutionary Economics* Volume 28, 265-286
- Kotha, R. 2019. *Does management training help entrepreneurs grow new ventures. Field experience. Field experimental evidence from Singapore.* INSEAD Working Paper.
- Kothari, C.R. 2017. *Research methodology: Methods and Techniques.* New Delhi: New Age International Publishers.
- Khuzwayo, S.S. 2015. *Evaluating the role of business incubators in South Africa.* A Thesis submitted to the University of KwaZulu-Natal.
- Lalkaka, R. 2001. *Best practices in business incubation: lessons (yet to be) learned.* International Conference on Business Centers: Actors for Economic and Social Development, Brussels, 2001, 14-15
- Ladzani, W.M. 2009. Entrepreneurship training for emerging SMEs in South Africa. *Journal of Small Business Management* 40(2), 154-161.
- Lamine, W. 2017. Technology business incubation mechanisms and sustainable regional development. *Journal of Technology Transfer. Springer, Volume 43(5), 1121-1141*
- Leboea, S.T. 2017. *The factors influencing SME failure in South Africa.* A Thesis submitted to the Graduate School of Business University of Cape Town.
- Leedy, P.D. and Omrod, J.E. 2010. *Practical research: Planning and design.* UpperSaddle River NJ: Pearson
- Lesakova, L. 2012. The role of business incubators in supporting the SME. *Acta Polytechnica Hungarica* Volume 9, No.3
- Leung, N.K.Y. and Lau, S.K. 2007. Information technology help desk survey to identify the classification of simple and routine enquires. *Journal of Computer Information Systems.* Available from: <https://www.researchgate.net> [Accessed 23 March 2020].
- Li, C. and Ahmed, N. 2020. Role of Business Incubators as a tool for entrepreneurship and development: The mediating and moderating role of business start-up and government regulations. *Sustainability, 12: 1-23*
- Lin, D., Wood, L.C. and Lu, Q. 2012. Improving business incubator service performance in China: The role of networking resources capabilities. *The Service Industries Journal* 32(13), 2091-2114

- Lose, T. 2016. Assessing the impact of incubation programme to small and medium enterprises development in the Western Cape Province of South Africa. *International Journal of Small Business and Entrepreneurship Research* volume 4 No.4, 16-29
- Lose, M. 2016. *Assessing the impact of incubation programme to small and medium enterprises development in the Western Cape Province of South Africa. Sustainability* <https://doi.org/10.3390/su71014344>
- Lose, T. and Tengeh, R.K. 2018. The Sustainability and Challenges of Business Incubators in the Western Cape Province, South Africa *Sustainability* 2015, 7(10), 14344-14357; <https://doi.org/10.3390/su71014344>
- Lose, T. 2016. *The role of business incubators in facilitating the entrepreneurial skills requirements of small and medium size enterprises in the Cape Metropolitan area, South Africa.* A Thesis submitted to Cape Peninsula University of Technology.
- Lose, T. & Tengeh, K. 2016. An evaluation of the effectiveness of business incubation programs: a user satisfaction approach. *Investment Management and Financial Innovations*, 13(2-2), 370-378.
- Lose, T., Maziriri, E.T. and Madinga, W. 2016. Assessing the impact of incubation programme to small and medium enterprises development in the Western Cape Province of South Africa. *International Journal of Small Business and Entrepreneurship Research* 4(4), 16-29
- Lose, T., Rens, Yakobi, K. & Kwahene, F. 2020. Views from within the incubation ecosystem: discovering the current challenges of technology business incubators. *Journal of Critical Reviews* 7 (19) 1-15
- Lose, T., 2021. Business Incubators In South Africa: A Resource-Based View Perspective. *Academy of Entrepreneurship Journal* 27 (1), 1-11.
- Lose, T. 2021. Institutionalised business incubation: a frontier for accelerating entrepreneurship in African countries. *Academy of Entrepreneurship Journal* 27(1), 1-10.
- Lose, T. and Tengeh, R.K. 2015. The Sustainability and Challenges of business incubators in the Western Cape Province South Africa. *Sustainability*, 7 14344-14357.
- Lorenzo, J.R.F. 2018. The competitive advantage in business, capabilities and strategy. What general performance factors are found in the Spanish wine industry. *Wine Economics and Policy* 7(2) 94-108
- Lourens, L. 2007. *Techforum, Innovative African Model business incubation attracts interests of international community.* Softstart BTI, Johannesburg.
- Lumpkin, G.T. 2005. The role of organisational learning in the opportunity recognition process. *Sustainability*, 7. 14344.

- Lynch, M. 2019. *Combining technology and entrepreneurial education through design thinking: Students reflections on the learning process*. Technological forecasting and social. Available from: <https://www.sciencedirect.com> [Accessed 20 March 2019].
- Masutha, M. and Rogerson, C.M. 2014. Small enterprise development in South Africa: The role of business incubators. In: Rogerson, C.M. and Szymanska, D. eds, *Bulletin of Geography. Socio-economic Series No.26, 141-155*
- Masutha, M., and Rogerson, C.M. 2014. "Small enterprise development in South Africa: The role of business incubators." *Bulletin of Geography. Socio-economic Series, 2014 Publication.*
- Moise, L.L., Khoase, R. and Ndayizigamiye, P, 2019. *Chapter 6: The influence of Government Support Interventions on the Growth of African Foreign-Owned SMMES in Pietermaritzburg, South Africa.*
- Martens, D.M. 2015. *Research and Evaluation in Education and Psychology*. 4<sup>th</sup> Edn Los Angeles: Sage.
- Majama, N.S. and Magang, T.I.T. 2017. Strategic Planning in small and medium enterprises: A case study of Botswana SMEs. *Journal of Management and Strategy volume 8, No.1, 74-103.*
- Majid, M.A.A. 2017. Piloting for interviews in qualitative research: Operationalisation and lessons learnt. *International Journal of Academic Research in Business and Social Sciences, Volume 7 No.4, 1073-1080*
- Macqueen, D. and Bolin, A. 2018. *Forest business incubation Towards sustainable forest and farm producer organisation (FFPO) businesses that ensure climate resilient landscapes*. World Food Organisation. <https://www.fao.org/3/i8754en/I8754EN.pdf>
- Msimango-Galawe, J. and Hlatshwayo, E.N. 2021. South African business incubators and reducing the SME failure rate – A literature review *Problems and Perspectives in Management, 19 (2), 194-205*
- Meyer, H. 2019. The UBI Global world rankings of business incubators and Accelerators. world rankings 19 /20 report. UBI Global.
- Malebana, M.J. and Swanepoel, E. 2014. The relationship between exposure to entrepreneurship education and entrepreneurial self-efficacy. *Southern African Business Review 18(1), 1-8*
- Manti, S. and Licari, A. 2018. How to obtain informed consent for research *Breathe. Sheff. 14 (2), 145-152.*

- Mason, C. and Arshed, N. 2013. Teaching entrepreneurship to university students through experiential learning: A case study industry and higher education. *SAGE Journal Volume 27 No.6, 449-463.*
- Maloka & Dlamini 2016. *Challenges facing government agencies in providing non-financial support to small and medium enterprises in the upper end market.* SAAPAM Limpopo Chapter 5<sup>th</sup> Annual Conference Proceedings 2016. Small Enterprise Development <http://www.seda.org.za/Publications/>
- Msimango-Galawe, J. and Hlatshwayo, E.N. 2021. South African business incubators and reducing the SME failure rate: A literature review. *Problems and Perspectives in Management*, 19 (2), 194-205
- Masocha, R. and Dzomonda, O. 2016. *The Mediating Role of Effective Working Capital Management on the Growth Prospects of Small and Medium Enterprises in Polokwane Municipality.* The South African Association of Public Administration and Management (SAAPAM) Limpopo Chapter 5th Annual Conference, The Park Hotel, Mokopane, South Africa October 26-28, 2016
- Msimango-Galawe, J. and Hlatshwayo, E.N. 2021. South African business incubators and reducing the SME failure rate – A literature review. *Problems and Perspectives in Management*, 19(2), 194-205.
- Mohammed, M. A., Mohammad, I. A., and Salman, M. A. 2017. Business incubators and its effects on incubated firms in Jordan. *Journal of International Business Management*, 11(1), 189–193.
- Moos, M. and Sambo, W. 2018. An exploratory study of challenges faced by small automotive businesses in townships: the case of Garankuwa, South Africa. *Journal of Contemporary Management* 15 (1), 467-494
- Mungai, D.N. and Njeru, A. 2015. Effect of Business Incubator Services on Performance of Business Ventures at Nairobi Incubation Lab, Kenya. *International Journal of Science and Research (IJSR) Impact Factor* 6(1),391
- Mongia, A.K. 2013. *Characteristics and attitudes of successful entrepreneurs: A comparable study of Norwegian entrepreneurs in Norway in the United States.* A Thesis submitted to NTNU School of Entrepreneurship, Norwegian University of Science and Technology.
- Merrifield, D.B. 1987. New Business Incubators. *Journal of Business Venturing*. 2(1), 277-284.

- Moreira, A.C. and Carvalho, M. F.S. 2014. *Incubation of New Ideas: Extending Incubation Models to less-favoured regions*. Available from: <https://www.intechopen.com> [Accessed 12 April 2020].
- Moos, M. and Sambo, W. 2018. An exploratory study of challenges faced by small automatic businesses in townships: The case of Garankuwa, South Africa. *Journal of Contemporary Management Volume 15, 467-494*
- Morgan, M. and Rochford, S. 2017. *Coaching and mentoring for frontline practitioners*. Dublin: Centre for Effective Services.
- Moffatt, S. 2006. *Using quantitative and qualitative data in health services research: What happens when mixed method findings conflict*. BMC Health Services Research. <https://bmchealthservres.biomedcentral.com> [Accessed 19 February 2020]
- Mohajan, H. 2017. Two criteria for good measurements in research: Validity and reliability. *Annals of Spiru Haret University, 17(3), 58-82*.
- Muriithi, S., Juma, J. and Ndegwa, C. 2018. Business Incubators: The missing link to small business survival. *The International Journal of Humanities and Social Studies 6(10), 201-209*
- Muyengwa, G., Dube, P., Battle, K. and Masinga, E. 2012. *An enterprise development initiative: Incubation in South African Motor Body Repair Sector*. The 6<sup>th</sup> Balkan Region Conference on Engineering and Business Education Sibiu, Romania, October, 18<sup>th</sup>-21<sup>st</sup>, 2012.
- Marks, J. and Hidden, K. 2017. SMMEs and the Green Economy. *Muddy waters and murky futures: An investigation into the sustainable practices of small medium and micro manufacturing enterprises in South Africa's Gauteng Province*. Gordon Institute of Business Science. Enterprise Development Academy.
- Mcdonald, S.M. 2012. Perception: A Concept Analysis. *International Journal of Nursing Knowledge 23(1), 2-9*.
- Malefane, S. 2013. Small Medium and Micro Enterprises and local economic-base restructuring: A South African local government perspective. *Journal of Public Adminsitration 48, 671-690*.
- Masocha, R. 2019. Social sustainability practices on small business in developing economies: A case of South Africa: *Sustainability, 11, 3257*.
- Mpe, R.I. 2018. *The role of government agencies in empowering women-owned SMMEs in selected municipalities in the Capricorn District of Limpopo Province*. A Thesis submitted to the University of Limpopo.

- Nema, D.K. and Verma, T.L. 2019. Role of Micro, Small and Medium Enterprises in achieving sustainable development goals. *International Journal for Research in Engineering Application and Management Volume 1-4 Issue 12, 575-582*
- Neneh, N.B. 2012. An exploratory study on entrepreneurial mindset in the small and medium enterprise sector: A South African perspective on fostering small and medium enterprise success. *African Journal of Business Management Volume 6(9), 3364-3372*
- Nair, S. and Blomquist, T. 2018. Failure prevention and management in business incubation: Practices towards a scalable business model. *Technology Analysis and Strategic Management 31(3), 266-278.*
- Nair, S., Tomas, B. 2018. The temporal dimension of business incubation: A value-creation perspective. *The International Journal of Entrepreneurship and Innovation, 21(1) 38–46*
- Ntlamelle, T. 2015. *The efficacy of SMME incubation as a strategy for enterprise development in South Africa.* A Thesis submitted to University of the Witwatersrand, Johannesburg, South Africa.
- Ndlovu, Q. and Murimba, M. 2018. *The adoption and effect of Enterprise Development initiatives on SMME's in the Construction, Mining and Financial Sectors in South Africa.* Master of Management specialising in Entrepreneurship and New Venture Creation University of the Witwatersrand
- Njoroge, C.W. and Gathungu, J.M. 2013. The effect of entrepreneurship education and training on development of small and medium size enterprises in Githynguri District, Kenya. *International Journal of Education and Research 1(8), 1-22.*
- Neneh, B.N. and Van Zyl, J. 2017. Entrepreneurial orientation and its impact on firm growth amongst SMEs in South Africa. *Problems and Perspectives in Management Volume 15 Issue 3, 166-178.*
- Ngcobo, S. and Sukdeo, R. 2015. Challenges facing SMMEs during their first two years of operation in South Africa. *Corporate Ownership and Control Volume 12 Issue 3, 505-512.*
- Noble, H. and Smith, J. 2015. *Issues of validity and reliability in qualitative research.* Available from: <https://ebn.bmj.com/content/18/2/34> [Accessed 19 February 2020].
- Nowell, L.S., Norris, J.M. and White, D.E. 2017. Thematic analysis: Striving to meet the trustworthiness criteria: *International Journal of Qualitative methods.* Available from: <https://journals.sagepub.com> [Accessed 12 April 2020].

- Ncube, M.S. and Chimucheka, T. 2019. The effect of managerial competencies on the performance of small and medium enterprises in Makana Municipality, South Africa. *African Journal of Hospitality, Tourism and Leisure Volume 8 (5), 1-15*
- Ngoasong, M.Z. 2015. *Digital entrepreneurship in emerging economies: The role of ICTs and local context*. In 42<sup>nd</sup> AIBU-UKI Conference, 16-17 April 2015, Manchester Metropolitan University, United Kingdom.
- Oberg, C. 2019. The role of business networks for innovation. Author Links Open Overlay Panel. *Journal of Innovation and Knowledge Volume 4 Issue 2, 124-128*.
- Organisation for Economic Cooperation and Development, 2015. *New Approaches to SME and Entrepreneurship Financing: Broadening the range of instruments*. Available from: <https://www.oecd.org> [Accessed 11 April 2020].
- Ogutu, V.O. and Kihonge, E. 2016. Impact of Business Incubators on Economic Growth and Entrepreneurship Development *International Journal of Science and Research 5(5), 231-241*
- Omona, J. 2013 Sampling in Qualitative Research: Improving the Quality of Research Outcomes in Higher Education. *Makerere Journal of Higher Education 4(2) 169 – 185*
- Oxford Dictionary 2016. Definition of Graduate [Online]. Oxford Dictionary. Available from: Available: [www.oxforddictionaries.com](http://www.oxforddictionaries.com) [Accessed 18 May 2016].
- Parliament, S.A. 2014. *The National Small Business Amendment Act*. In: Business S. (ed.) Cape Town. Parliament of South Africa.
- Patton, D. 2013. Realising potential: The impact of business incubation on the absorptive capacity of new technology-based firms. *SAGE Journals*. Available from: <https://journals.sagepub.com> [Accessed 9 March 2020].
- Patton, D. 2014. Realising potential: The impact of business incubation on the absorptive capacity of new technology-based firms *International Small Business Journal 32(8) 897–917*
- Patton, M.Q. 2002. *Qualitative Research and evaluation methods*. Thousand Oaks, CA: SAGE Publications.
- Parkinson, S. and Holmes, E.V., Stapley, S. and Midgley, N. 2016. Framework analysis: A worked example of study exploring young people's experiences depression. *Qualitative Research in Psychology 13 (2), 109-129*.
- Patton, M. 2001. *Qualitative research and evaluation and methods*. Beverly Hills, CA: Sage.
- Pettersen, I.B. 2015. Business incubation and the network resources of start-ups. *Journal of Innovation and Entrepreneurship 5(7), 1-8*

- Pickens, J. 2005. Chapter 3: *Attitudes and Perceptions*. Available from: <https://www.researchgate.net/> [Accessed 12 April 2020].
- Pollard, V. and Wilson, E. 2014. The entrepreneurial mindset in creative and performing arts. *Higher Education in Australia. JSTOR Volume 3 No.1, 3-22*.
- Pompa, C. 2013. *Literature review on the impact of business incubation, mentoring, investment and training on start-up companies*. London: Overseas Development Institute.
- Ramraj, S. 2018. *Exploring the role of South African business incubators in creating sustainable SMMEs through technology transfer*. A Dissertation submitted to North-West University.
- Randall, T.B. 2013. *Two Essays on the knowledge-based view of the firm: The impact of local market knowledge on domestic firm performance in both transitional and developed economies*. Dissertations, Theses and Capstone and Projects. Paper 553.
- Rashid, L. 2019. Entrepreneurship education and sustainable development goals: A literature review and closer look at Fragile states and technology-enabled approaches. *Sustainability 11, 5343*. Available from: [www.mdpi.com/journal/sustainability](http://www.mdpi.com/journal/sustainability)
- Rahman, S. 2017. The advantages and disadvantages of using qualitative and quantitative approaches and methods in language: Testing and Assessment Research: A Literature Review. *Journal of Education and Learning Volume 6 No.1*
- Rahman, N.A. 2015. *An overview of technological innovation on SME survival: A conceptual Paper*. 6<sup>th</sup> International Research Symposium in Service Management, IRSSM-62015, 11-15 August 2015, UiTM Sarawak, Kuching, Malaysia. *Procedia – Social and Behavioural Sciences, 224, 508-515*
- Raposa, M.P. and do Paco, A. 2011. Entrepreneurship education: Relationship between education and entrepreneurial activity. *Psicothema Volume 23 Number 3, 453-457*
- Rashid, L. 2019. Entrepreneurship education and Sustainability Development Goals: A literature review and closer look at fragile states and Technology-enabled approaches. *Sustainability 11, 5343*.
- Ramluckan, S. and Thomas, W. 2011. Raising business. *Agenda, 2, 18-21*.
- Ranyane, K.A. 2014. *A support framework for the survivalist entrepreneurs in the Free State Province, South Africa*. A Dissertation submitted to the University of the Free State.

- Redondo-Carretero, M. and Camarero Izquierdo, C. 2017. "Relationships between Entrepreneurs in Business Incubators." An exploratory case study. *Journal of Business-to-Business Marketing*.
- Riese, J. and Licari, A. 2018. *What is access in the context of qualitative research?* <https://journals.sagepub.com> [Accessed 10 March 2020]
- Rider, C.I. 2019. *Experience and entrepreneurship: A Career Transition Perspective*. IFN Working Paper No.970 Research Institute of Industrial Economics, Stockholm, Sweden.
- Rizzi, D.I. 2017. The importance of incubation processes from the perspective of incubated and graduated companies. *Journal of Information Systems and Technology Management Volume 14, Number 2, 263-279*.
- Ryan, T. 2017. *The factors influencing SME failure in South Africa*. A Thesis presented to the Graduate School of Business, University of Cape Town.
- Rogerson, C.M. 2017. Business incubation for tourism SMME development: International and South African experience *African Journal of Hospitality, Tourism and Leisure*, 6 (2), 1-2
- Robina-Ramirez, R. and Human, G. 2019. How macro level foundations influence emerging micro entrepreneurial activities: The case of South Africa. *Entrepreneurship and Sustainability* 7(4), 3078-3100
- Rugani, E.C. & Potgieter, M. 2018. The impact of financial support on the success of small, medium and micro enterprises in the Eastern Cape province', *Acta Commercii* 18(1), 1-12
- Rogerson, C. 2008. Tracking SMME development in South Africa: Issues of finance, training and the regulatory environment. *Urban Forum* (1), 61-81
- Roig, M. 2003. *Avoiding plagiarism, self-plagiarism, and other questionable writing practices: A guide to ethical writing*. Available from: <https://ori.hhs.gov/sites> [Accessed 13 April 2020].
- Rodriguez, L., Hine, T., Hine, S. and Chavez, C. 2015. *Asking people what they think: Using perceptions data to monitor the post-2015 agenda*. Working Paper 413 Shaping Policy for Development.odi.org.
- Rogerson, J.M. and Visser, G. 2020. "New Directions in South African Tourism Geographics." Springer Science and Business Media LLC, 2020
- Saleh, A.A.M. 2015. The role of marketing capabilities in firm's success. *International Journal of Management Science and Business Administration Volume 2 Issue 1, 56-65*.

- Salem, M.I. 2014. The role of business incubators in the Economic Development of Saudi Arabia. *International Business and Economics Research Journal Volume 13 Number 4, 853-860*
- Salkind, N.J. 2010. *Instrumentation*. In: Encyclopaedia of Research Design. Sage Research Methods. Available from: <https://methods.sagepub.com> [Accessed 19 February 2020].
- Saunders. 2017. Saturation in qualitative research: Exploring its conceptualisation and operationalization. *Qual and Quant*. 52(4): 1893-1907.
- Saunders, M., Lewis, P. and Thornhill, A. 2011. *Research methods for Business Students*, 5<sup>th</sup> ed. Pearson: New Delhi.
- Schutte, F. 2015. Small business incubator coaching in South Africa: Exploring the landscape. *International Journal of Entrepreneurship Volume 23 Issue 4, 1-13*.
- Sehitoglu, Y. and Ozdemir, O.C. 2013. The Impact of Business Incubation on Firm Performance during Post Graduation Period- Turkey Example. *British Journal of Arts and Social Sciences*, 12(1), 171-190
- Schutte, F. 2019. Small business incubator coaching in South Africa: exploring the landscape *International Journal of Entrepreneurship* 23(4), 1-13
- Ssekiziyivu, B. and Banyenzaki, Y. 2021. Business incubation practices and sustainability of incubatee start-up firms in Uganda, *Cogent Business and Management*, 8 (1) 1-17
- Styve, J. and Stubberud, P. 2018. *Measuring Incubation Performance: A Quantitative Study on the Effects of Business Incubation* Master thesis: Economics and Business Administration: Strategy and Management; Business Analysis and Performance Management: Norwegian School of Economics
- Singh, H.R. and Ratvi, H. 2013. Traits of successful entrepreneurs. *International Journal of Scientific Research Volume 2 Issue 11, 292-293*.
- Smith, D. 2003. Five principles for research ethics: Cover your bases with these ethical strategies. *Monitor Staff Volume 34 number 1, 56*.
- Simpson, M., Bellamy, S. and Tuck, N. 2004. Small business success factors: The role of education and training. *Education and training* 46(8-9)
- Schepers, J. 2019. Exploring the motivational and behavioural foundations of external technology experts' knowledge sharing in collaborative R&D Projects: The Contingency Role of Project Formalisation. *Journal of Product Innovation Management Volume 36, Issue 4, 467-489*

- Shepard, J. 2013. Small business incubators in the USA: A historical review and preliminary research findings. *Journal of Knowledge-based Innovation in China*. 5(3), 213-233
- Schutte, F. and Direng, T. 2019. Incubation of entrepreneurs contributes to business growth and job creation: A Botswana case study. *Academy of Entrepreneurship Journal* 25(3), 1-10.
- Schutte, M.C. 2019. *Are dynamic capabilities relevant for incubation performance? A Contrarian case study on incubation*. A Thesis submitted to Lund University. Available from: <http://lup.lub.lu.se/luur> [Accessed 29 February 2020]
- Schutte, F. 2019. *Small business incubator coaching in South Africa: Exploring the landscape*. The Research Department, Gordon Institute of Business Science.
- Schutte, F. and Direng, T. 2019. *Incubation of entrepreneurs contributes to business growth and job creation: A Botswana Case Study*. A Thesis submitted to the Gordon Institute for Business Science, University of Pretoria
- SEDA, 2015. *Annual Report (2014/2015)*. Pretoria: SEDA
- Tarrant, C. 2014. *Responsiveness of primary carer services: Development of a patient-report measure – Qualitative study and initial quantitative pilot testing*. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK263694/> [Accessed 28 February 2020].
- Tang, M., Walsh, G.S., Li, C. and Baskaran, A. 2019. Exploring technology business incubators and their business incubation models: case studies from China. *The Journal of Technology Transfer* <https://doi.org/10.1007/s10961-019-09759-4>
- Tembe, F. and Galawe, J. 2018. *Business incubators and SMMEs performance in South Africa*. Thesis: Master of Management in Entrepreneurship and New Venture Creation Wits Business School, Johannesburg.
- Tiren, D. 2020. Assessing the efficacy of business incubation in Nairobi County, Kenya: an incubatee's perspective. Thesis: Master of Commerce: Strathmore University]. <http://hdl.handle.net/11071/10253>
- Theodorakopoulos, N. 2014. What Matters in Business Incubation? A Literature Review and a Suggestion for Situated Theorising. Available at: <https://publications.aston.ac.uk> (Accessed on 17 November 2021).
- Tongco, D.C. 2007. Purposive Sampling as a Tool for Informant Selection. *Ethnobotany Research & Applications* 5(1), 147-158
- Theodoraki, C., Messeghem, K., and Audretsch, D. B. 2020. The effectiveness of incubators' competition strategy in the entrepreneurial ecosystem: Empirical evidence from

- France. *IEEE Transactions on Engineering Management*, 1–14.  
<https://doi.org/10.1109/TEM.2020.3034476>
- Tengeh, R.K. and Choto, P. 2015. The relevance and challenges of business incubators that support survivalist entrepreneurs. *Investment Management and Financial Innovations* 12(2-1), 150-161.
- Theodorakopoulos, N., Kakabadse, N.K. and McGowan, C. 2014. What matters in business incubation? A Literature review and a suggestion for situated theorising. *Journal of Small Business and Enterprise Development*, 21(1), 602-622
- Sutton, J. 2015. Qualitative Research: Data collection, Analysis and Management. *Can J Hosp Pharm.* 68(3) 226-231.
- Struwing, A.K.M.A. 2011. An evaluation of the Entrepreneurs' perception of Business-Incubation Services in Kenya. *International Journal of Business Administration*, 2(1), 1-10
- Tilana, L. 2015. *The impact of business incubation in shaping the entrepreneurial mindset among Incubatees*. A Thesis submitted to the University of the Witwatersrand, Johannesburg.
- Tembe, F. 2018. *Business incubators and SMMEs performance in South Africa*. A Thesis submitted to Wits Business School, Johannesburg: University of the Witwatersrand
- Tarwirei, M.B. 2015. *The impact of managerial competencies on the performance of SMEs in the Buffalo City Municipality*. A Dissertation submitted to the University of Fort Hare.
- Tembe, F. 2018. *Business incubators and SMME performance in South Africa*. Thesis submitted to the University of the Witwatersrand, Johannesburg.
- Tengeh, R.K. and Choto, P. 2015. The relevance and challenges of business incubators that support survivalist entrepreneurs. *Investment Management and Financial Innovations* 12(2), 150-161.
- Van der Westhuizen, T. 2019. *The influence of technology on entrepreneurial self-efficacy development for online business start-up in developing nations*. The International Journal of Entrepreneurship and Innovation. Available from: <https://journals.sagepub.com> [Accessed 20 March 2019].
- Vanclay, F. 2013. Principles for ethical research involving humans: Ethical professional practice in impact assessment part 1. *Impact Assessment and Project Appraisal* 31(4) 243-253

- Van der Spuy, S.J.H. 2019. The state of business incubation in the Northern Cape: A service spectrum perspective. *Southern African Journal of Entrepreneurship and Small Business Management* 11(1), a271
- Vocabulary Dictionary 2016. *Definition of Incubate* [Online]: Available from: <https://www.vocabulary.com/dictionary/incubate> [Accessed 18 May 2016].
- Voisey, P. Gornall, L., Jones, P. and Thomas, B. 2006. The measurement of success in a business incubation project. *Journal of Small Business and Enterprise Development*, 13(1), 454-468
- Wang, C.L. and Chugh, H. 2014. Entrepreneurial learning: past research and future challenges. *International Journal of Management Reviews*, 16(1), 24-61
- Wilkinson, D. and Birmingham, P. 2003. *Using Research Instruments: A guide for researchers*. New York: Routledge Falmer.
- Williams, C. 2007. Research Methods. *Journal of Business and Economics Research* 5 (3) 65-72
- Williams, M., Jordan, A., Scott, J., Jones, M.D. 2020. "Pharmacy professionals experiences and perceptions of providing NHS patient medicines helpline services: A qualitative study." BMC Health Services Research, 2020.
- Weyers, M.L. 2011. "The habits of highly effective community development practitioners." *Development Southern Africa* 28(1), 87-98.
- Wilkinson, D. and Birmingham, P. 2014. *Using Research Instruments A Guide for Researchers*. New York: Routledge Falmer.
- Wagener, S.L. 2008. Businessman or Horst? Individual differences between entrepreneurs and small business owners in the hospitality industry. *Service Industries Journal* 30(ERS-2008-073-ORG).
- Salem, M.I. 2014. The Role of Business Incubators In the Economic Development of Saudi Arabia,
- Yilmaz, 2013. Comparison of quantitative and qualitative research traditions. Epistemological, Theoretical and Methodological differences. *European Journal of Education* 48 (2) 311-325
- Yuan, L.W. and Qalati, S.A. 2019. Impact of prior work experience on entrepreneurial intention and theory of planned behaviour in the context of Pakistan. *Journal of Entrepreneurship and Organisation Management* 8(1), 1-9.
- Zaidi, R.A., Khan, M.M., Khan, R.A. and Mujtaba, B.G. 2021. Do entrepreneurship ecosystem and managerial skills contribute to start-up development? *South Asian Journal of Business Studies*, 1(1) <https://doi.org/10.1108/>

Zimund, W.G. 2003. *Business Research Methods*. Thomson South-Western.

Zhou, Y., Xu, L. and Manyike, R. 2013. University science parks and promoting knowledge transfer in emerging economies: A Study on required attributes with evidences from South Africa and China”, Suzhou-Silicon Valley-Beijing International Innovation Conference.

# APPENDICES

## Appendix 1 Consent Form

Informed Consent Letter 3C

**UNIVERSITY OF KWAZULU-NATAL  
GRADUATE SCHOOL OF BUSINESS AND LEADERSHIP**

Dear Respondent,

**UNIVERSITY OF KWAZULU-NATAL  
GRADUATE SCHOOL OF BUSINESS AND LEADERSHIP**

**MBA Research Project**  
**Researcher:** Name (Telephone number)  
**Supervisor:** Name (Office Telephone number) **Research Office:** Ms P Ximba  
031-2603587

### CONSENT

I.....(full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.

SIGNATURE OF PARTICIPANT

DATE

.....

.....

## Appendix 2 Interview Schedule

### Demographic Information

- Age
  - 18 yrs to < 25yrs
  - 25yrs to < 35yrs
  - 35yrs to < 45yrs
  - 45yrs to < 55yrs
  - 55yrs or greater
  
- Gender
  - Male
  - Female
  - Prefer not to answer
  
- Race
  - Black
  - Indian
  - Coloured
  - White
  - Other (please specify) .....
  
- Length of time your business in operation
  - 1yrs to < 3yrs
  - 3yrs to < 5yrs
  - > 5yrs
  
- Length of time with Chemin
  - 1,5yrs to < 2yrs
  - 2yrs to < 3yrs
  
- Length of time after Graduation
  - 1yrs to < 2yrs
  - 2yrs to < 3yrs
  - 3yrs to < 5yrs
  
- Qualifications
  - Matric
  - Diploma/National Diploma
  - Degree
  - Other (please specify)
  
- Number of business owners
  - 1 to < 3
  - 3 to < 5

## Appendix 3 Interview Guide

1. What can you tell me about your business and yourself before joining the incubator?
2. How has the incubation process added value to your business venture since you joined? if not please elaborate what is it exactly that the incubator is failing to do.
3. Tell me about your reasons of joining the Chemin incubator programme?
4. What do you understand to be the Chemical Incubator mandate and its objectives?
5. From your experience as an Incubatee, how does the incubation process work? Would you say the process covers all business aspects? If not, what would you say is missing in the process.
6. Incubator resources: how have they contributed to your business growth? Please highlight specific incubator services that have contributed to your business growth.
7. According to your understanding, why did the Government create and continue to fund Incubators?
8. Do you think the government is doing enough to support the incubators, for them to deliver their mandates?
9. As a South African citizen with a business, how do you think you should contribute in order to assist the government with the current challenges like slow economic growth and alleviating poverty?
10. Would you contribute to the incubator in monetary terms or in kind? If so what would be your contribution and why?
11. Would you recommend that anyone in your field to join Chemin? Would you recommend the incubator programme to any start-up company even if they are not on your field? Why?

## Appendix 4 Turn-it-in report

### Small, Micro and Medium Enterprises perceptions towards business incubation- Chemical Incubator

#### ORIGINALITY REPORT

<b>1</b> %	<b>1</b> %	<b>0</b> %	<b>0</b> %
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

#### PRIMARY SOURCES

<b>1</b>	<b>research.thea.ie</b> Internet Source	<1 %
<b>2</b>	<b>wiredspace.wits.ac.za</b> Internet Source	<1 %
<b>3</b>	<b>uir.unisa.ac.za</b> Internet Source	<1 %
<b>4</b>	<b>bspace.buid.ac.ae</b> Internet Source	<1 %
<b>5</b>	<b>Submitted to Erasmus University of Rotterdam</b> Student Paper	<1 %
<b>6</b>	<b>www.chemin.co.za</b> Internet Source	<1 %
<b>7</b>	<b>unitec.researchbank.ac.nz</b> Internet Source	<1 %
<b>8</b>	<b>gbata.org</b> Internet Source	<1 %
	<b>parlinfo.aph.gov.au</b>	

## Appendix 5 Ethics Clearance



09 October 2017

Mrs Thembeke Nsimbi (202522999)  
Graduate School of Business & Leadership  
Westville Campus

Dear Mrs Nsimbi,

**Protocol reference number: HSS/1335/017M**  
**Project title: SMME's perceptions towards Business Incubation – Chemical Incubator (Chemin)**

### Approval Notification – Expedited Approval

In response to your application received on 14 August 2017, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

**PLEASE NOTE:** Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully



Dr Shenuka Singh (Chair)

/ms

Cc Supervisor: Mr Christopher T Chikandiwa  
Cc Academic Leader Research: Dr Muhammad Hoque  
Cc School Administrator: Ms Zarina Bullyraj

---

### Humanities & Social Sciences Research Ethics Committee

Dr Shenuka Singh (Chair)

Westville Campus, Govan Mbeki Building

Postal Address: Private Bag X54001, Durban 4000

Telephone: +27 (0) 31 260 3587/8350/4557 Facsimile: +27 (0) 31 260 4609 Email: [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za) / [snymam@ukzn.ac.za](mailto:snymam@ukzn.ac.za) / [mohung@ukzn.ac.za](mailto:mohung@ukzn.ac.za)

Website: [www.ukzn.ac.za](http://www.ukzn.ac.za)



Faculty of Commerce: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

## Appendix 6 Gatekeepers letter



**Attention:** Chair  
Research Ethics Committee  
GSB&L  
UKZN  
Westville Campus  
4001

**Permission to conduct research for Thembeke Nsimbi – Student Number 202522999**

We hereby advise you that the application by the MBA student Thembeke Nsimbi has been considered and granted by the Centre Manager Siphokazi Hoza from the Chemistry Incubator. We promise to provide all necessary support the research topic namely: **“Beneficiaries perception towards Business Incubation”**.

Should you have queries in this regard, please do not hesitate to contact me at 0786443454.

Yours faithfully,

[Redacted Signature]  
Hoza Siphokazi  
Centre Manager  
siphokazi@chemin.co.za  
[Redacted Contact Info]

Board of Directors

Gordon David Turner | Samuel Moshoeu Matlala | Siphiso Freddie Sogo | Abisha Peter Tembo | Mpendulo Colin Mkhooza | Andile Antony Yengezi