A GAUTENG PROVINCE-BASED CASE STUDY TO EXPLORE THE INFLUENCE OF BUSINESS INCUBATION PROCESS ON ENTREPRENEURIAL PERFORMANCE AND GROWTH POST INCUBATION.

by

LESEGO CORETTA SERWADI

submitted in accordance with the requirements

for the degree of

DOCTOR OF PHILOSOPHY

in the subject

MANAGEMENT STUDIES

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: PROF A P AMADI-ECHENDU

CO-SUPERVISOR: PROF C VAN ZYL

February 2025

DECLARATION

Name: Lesego Coretta Serwadi

Student Number: 41113063

Degree: Doctor of Philosophy in Management Studies: (Entrepreneurship)

A GAUTENG PROVINCE-BASED CASE STUDY TO EXPLORE THE INFLUENCE OF THE BUSINESS INCUBATION PROCESS ON ENTREPRENEURIAL PERFORMANCE AND GROWTH POST-INCUBATION.

I declare that this thesis (title above) is my work and that all the sources that I have used or quoted have been indicated and acknowledged using complete references.

_____ _____

Lesego C. Serwadi **Date**

DEDICATION

This thesis is dedicated to my parents and children (Boipelo and Bokang Kweyama). You are my pillars of strength.

ACKNOWLEDGEMENTS

To Professor Anthea Amadi-Echendu, thank you for your greatness and high level of excellence. The mentorship you provided is highly appreciated. To Professor Cina Van Zyl, thank you for the guidance you provided and for always reminding me that success is possible. To Michelle Du Bruyn, thank you for assisting in editing the document. A special thank you to all post-incubatees that participated in the study; your views of how entrepreneurship can change the trajectory of the South African economy are phenomenal. I am forever grateful to the incubators, incubation managers and mentors who granted me the permission to conduct the research. Thank you to the Lord Almighty.

ABSTRACT

Business incubators in the Gauteng province are supported by key economic stakeholders and are strategically positioned in areas of industry-specific activities. However, given the support provided by incubators to incubatees, little is known regarding the influence and impact of business incubation services on the performance and sustainability of businesses once they leave or graduate from business incubation programmes. This research study sought to explore if the influence and resources provided during business incubation processes enabled entrepreneurs to develop and grow their business in the market post-incubation. The study further explored whether business incubators equip incubatees with sufficient resources for continued existence in the market post business incubation. The research study applied the theory of business incubation and the theory of entrepreneurial value creation. The theory of business incubation provided an input approach in the identification of business incubation phases which are (a) idea formulation, (b) decision to proceed, (c) resource gathering, (d) launch of a new enterprise and (e) firm development. The entrepreneurial value creation theory served as an output identification process in the stages of entrepreneurial growth which are (a) entrepreneurial opportunity, (b) entrepreneurial competence and (c) entrepreneurial reward. The interpretivist study followed a qualitative methodology and triangulated using a literature review, interviews with post-incubatees and focus group-sessions with incubation managers, practitioners and programme and policy developers. The findings indicated that all post-incubatees interviewed are still operating their businesses although some have diversified from their original business concepts. Although post-incubatees' businesses are still in operation, they continue to experience numerous challenges such as market barriers and lack of funding for capital and operational needs. These challenges could have been identified and resolved during the business incubation phases. A further finding was that business incubators lack monitoring and evaluation systems to assess and track the performance of post-incubatees' businesses after they have left or graduated from a business incubation programme, meaning, the influence of business incubators was

previously never measured. Interviews were conducted with ten post-incubatees and three focus group sessions were convened with incubation practitioners and policy developers. The study contributes to the body of knowledge in that the theory of business incubation and the theory of entrepreneurial value creation established a connection between the inputs supplied throughout the business incubation phases and the entrepreneurial outcomes generated within the value creation process. The study developed two frameworks; the first framework was on the influence of business incubation services on the performance of businesses during a business incubation process. The second framework was on the influence of business incubation services of the performance of businesses after leaving or graduating from a business incubation programme. These frameworks aim to assist in the impact assessment and enhancement of business incubation support services during and post-incubation which can be used in a theoretical and practical context. The study proposes that future business incubation support and research should not only be limited to a qualitative methodology, but a quantitative methodology and should also be utilised in future to measure the influence of business incubation process on entrepreneurial performance and growth post incubation.

Key words: Business incubation, post-incubatees, SME's, nascent businesses, business incubation theory, entrepreneurial value creation theory.

TSHOBOKANYO

Ditshegetsi tsa dikgwebo mo porofenseng ya Gauteng di tshegediwa ke bannaleseabe ba botlhokwa ba ikonomi mme ba beilwe ka kelotlhoko ma mafelong a rileng a intasetirii. Le fa go ntse jalo, ka ntlha ya tshegetso e e tlamelwang ke ditshegetsi go batshegediwa, ga go itsiwe go le kalo mabapi le tlhotlheletso le khuetso ya ditirelo tsa go tshegetsa dikgwebo mo tirong gammogo le ka moo dikgwebo di ka kgonang go ikemela ka dinao morago ga go aloga mo mananeong a tshegetso a. Patlisiso eno e ne e batla go sekaseka gore a tshegetso le didirisiwa tse di neng di tlamelwa ka nako ya dithulaganyo tsa go tshegetsa dikgwebo di kgontshitse bagwebi go tlhabolola le go godisa dikgwebo tsa bone mo mmarakeng morago ga go tshegediwa. Patlisiso e ne ya tswelela go sekaseka gore a ditshegetsi tsa dikgwebo di tlamela batshegediwa ka didirisiwa tse di lekaneng go tswelela go nna teng mo mmarakeng morago ga go tshegediwa ga dikgwebo tsa bone. Patlisiso e dirisitse tiori ya go tshegetsa dikgwebo le tiori ya go tlhama boleng jwa dikgwebo. Tiori ya go tshegetsa dikgwebo e ne ya tlamela ka mokgwa wa go tsenya tshedimosetso mo go tlhaoleng dikgato tsa go tshegetsa dikgwebo tseo e leng (a) go tlhama dikakanyo; (b) tshwetso ya go tswelela; (c) kokoanyo ya didirisiwa; (d) go thankgololwa ga kgwebo e ntšhwa; le (e) tlhabololo e e tiileng. Tiori ya go tlhama boleng jwa dikgwebo e ne ya dira jaaka thulaganyo ya go supa dipholo mo dikgatong tsa kgolo ya dikgwebo tse e leng (a) tšhono ya kgwebo; (b) bokgoni jwa kgwebo; le (c) tuelo ya kgwebo. Patlisiso ya tlhaloso e ne ya latela mokgwa wa boleng le go dira dikarolo tse tharo ka tiriso ya tshekatsheko ya dikwalo, ditherisano le batshegediwa morago ga tshegetso le dithulaganyo tsa setlhopha se se tsepameng le batsamaisi ba go tshegetsa, badiragatsi le batlhabolodi ba lenaneo le pholisi. Diphitlhelelo di supile gore batshegediwa botlhe morago ga tshegetso ba ba rerisitsweng ba santse ba tsamaisa dikgwebo tsa bone le fa ba bangwe ba bone ba farologane go tswa mo dikgopolong tsa bone tsa fa ba ne ba tlhama dikgwebo. Le fa dikgwebo tsa morago ga go tshegediwa di santse di dira, di tswelela go itemogela dikgwetlho di le dintsi tse di jaaka dikgoreletsi tsa mebaraka le tlhaelo ya matlole a ditlhokego tsa matlole le tsa tiro. Dikgwetlho tse di ka bo di supilwe le go rarabololwa ka nako ya dikgato tsa go tshegetsa dikgwebo. Phitlhelelo e nngwe e ne e le gore ditshegetsi tsa dikgwebo di

tlhoka ditsamaiso tsa go baya leitlho le go sekaseka go latedisa tiragatso ya dikgwebo tsa morago ga go tshegediwa morago ga gore di tswe kgotsa di aloge mo lenaneong la go tshegetso ya dikgwebo,se se rayang gore tlhotlheletso ya ditshegetsi tsa kgwebo e ne e sa ke ya lekanngwa mo nakong e fetileng. Ditherisano di ne tsa tshwarwa le batshegediwa ba le lesome morago ga tshegetso mme go ne ga bidiwa dithulaganyo di le tharo tsa ditlhopha tse di tsepameng le badiragatsi ba tshegetso le batlhabolodi ba pholisi. Patlisiso e na le seabe mo mmeleng wa kitso ka gore tiori ya go tshegetsa dikgwebo le tiori ya go tlhama boleng jwa dikgwebo di tlhomile kgolagano magareng ga ditsenngwateng tse di tlametsweng mo dikgatong tsotlhe tsa go tshegetsa kgwebo le dipoelo tsa kgwebo tse di tlhagisitsweng mo teng ga thulaganyo ya go tlhama boleng. Patlisiso e ne ya tlhama matlhomeso a le mabedi. Letlhomeso la ntlha le ne le ikaegile ka tlhotlheletso ya ditirelo tsa go tshegetsa dikgwebo mo tirong ya dikgwebo ka nako ya thulaganyo ya go tshegetsa dikgwebo. Letlhomeso la bobedi lone le ne le ikaegile ka tlhotlheletso ya ditirelo tsa go tshegetsa dikgwebo tsa tiragatso ya dikgwebo morago ga go tswa kgotsa go aloga mo lenaneong la go tshegetsa dikgwebo. Matlhomeso ano a ikaelela go thusa mo tshekatshekong ya ditlamorago le go tokafatsa ditirelo tsa kemonokeng ya go tshegetsa dikgwebo ka nako le morago ga go tshegediwa tse di ka dirisiwang mo molebong wa tiori le wa tiriso. Patlisiso e tshitshinya gore kemonokeng ya isago ya go tshegetsa dikgwebo le dipatlisiso ga di a tshwanela go lekanyediwa fela go mokgwa wa boleng (khwaletheithifi), mme le mokgwa wa bontsi (khwanthitheithifi) o tshwanetse go dirisiwa mo isagong go lekalekanya tlhotlheletso ya thulaganyo ya go tshegetsa dikgwebo mo tirong ya kgwebo le mo kgolong morago ga go tshegediwa.

Mareo a a botlhokwa: Tshegetso ya dikgwebo, batshegediwa morago ga tshegetso, dikgwebopotlana (diSME), dikgwebo tse di simolotsweng, tiori ya tshegetso ya dikgwebo, tiori ya tlhamo ya boleng jwa dikgwebo.

OPSOMMING

Besigheidsinkubators in die Gauteng-provinsie word ondersteun deur belangrike ekonomiese belanghebbendes en is strategies geposisioneer in bedryfspesifieke areas. Gegewe die ondersteuning wat inkubators aan beginbesighede bied, is min egter bekend oor die invloed en impak van besigheidsinkubasiedienste op die prestasie en volhoubaarheid van besighede nadat hulle die besigheidsinkubasieprogram verlaat het. Hierdie studie het gepoog om vas te stel of die invloed van besigheidsinkubasieprosesse en die hulpbronne wat tydens die inkubasietydperk verskaf word entrepreneurs in staat stel om hul onderneming na die inkubasietydperk in die mark te ontwikkel en laat groei. Die studie het ook probeer vasstel of besigheidsinkubators beginbesighede toerus met voldoende hulpbronne om na die inkubasietydperk in die mark te bly voortbestaan. Die studie is gebaseer op die besigheidsinkubasieteorie en die entrepreneuriese waardeskeppingsteorie. Die besigheidsinkubasieteorie het 'n aanvangsbenadering verskaf vir die identifisering van die volgende besigheidsinkubasiefases: (a) ideeformulering; (b) die besluit om voort te gaan; (c) hulpbroninsameling; (d) bekendstelling van die nuwe onderneming; en (e) ontwikkeling van die onderneming. Die entrepreneuriese waardeskeppingsteorie het gedien as 'n uitsetproses om die volgende stadiums van entrepreneuriese groei te identifiseer: (a) entrepreneursgeleentheid; (b) entrepreneursbevoegdheid; en (c) entrepreneursbeloning. Die vertolkende studie is gebaseer op 'n kwalitatiewe metodologie en triangulasie met 'n literatuuroorsig, onderhoude met besigheidseienaars wat reeds die inkubasieprogram verlaat het en fokusgroepsessies met inkubasiebestuurders en -praktisyns en program- en beleidsontwikkelaars. Die bevindinge het aangedui dat alle besigheidseienaars wat reeds die inkubasieprogram verlaat het met wie onderhoude gevoer is steeds hul besighede bedryf alhoewel sommige hul oorspronklike besigheidskonsepte gediversifiseer het. Alhoewel besigheidseienaars wat reeds die inkubasieprogram verlaat het se besighede steeds in bedryf is, ervaar hulle steeds talle uitdagings soos markversperrings en 'n gebrek aan befondsing vir kapitaal- en bedryfsbehoeftes. Dié uitdagings kon tydens die inkubasiefase geïdentifiseer en opgelos gewees het. ’n Verdere bevinding was dat besigheidsinkubators nie monitering- en evalueringstelsels het om die prestasie van

besighede te assesseer en na te spoor nadat hulle 'n besigheidsinkubasieprogram voltooi en verlaat het nie, wat beteken die invloed van besigheidsinkubators is nooit voorheen gemeet nie. Onderhoude is gevoer met tien besigheidseienaars wat reeds die inkubasieprogram verlaat het en drie fokusgroepsessies is gehou met inkubasiepraktisyns en beleidsontwikkelaars. Die studie dra by tot die korpus kennis deurdat die besigheidsinkubasieteorie en die entrepreneuriese waardeskeppingsteorie 'n verband gevestig het tussen die insette wat gedurende al die besigheidsinkubasiefases gelewer word en die entrepreneuriese uitkomste wat deur die waardeskeppingsproses gegenereer word. Die studie het twee raamwerke ontwikkel. Die eerste raamwerk is gebaseer op die invloed van besigheidsinkubasiedienste op die prestasie van besighede tydens die besigheidsinkubasieproses. Die tweede raamwerk is gebaseer op die invloed van besigheidsinkubasiedienste op die prestasie van besighede nadat hulle die besigheidsinkubasieprogram verlaat het. Hierdie raamwerke het ten doel om te help met die impakbepaling en verbetering van besigheidsinkubasie-ondersteuningsdienste tydens en na inkubasie en kan in 'n teoretiese en praktiese konteks gebruik word. Die studie stel voor dat toekomstige besigheidsinkubasie-ondersteuning en -navorsing nie net beperk moet word tot 'n kwalitatiewe metodologie nie, maar dat 'n kwantitatiewe metodologie ook gebruik moet word om die invloed van die besigheidsinkubasieproses op entrepreneuriese prestasie en groei na inkubasie te meet.

Sleutelwoorde: Besigheidsinkubasie, besigheidseienaars wat reeds die inkubasieprogram verlaat het; KMO’s, opkomende ondernemings/besighede, besigheidsinkubasieteorie, entrepreneuriese waardeskeppingsteorie.

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BI	Business Incubator
COVID-19	Corona Virus Disease 2019
DOI	Diffusion of Innovation
EVC	Entrepreneurial Value Creation
GDP	Gross Domestic Product
GEM	Global Entrepreneurship Monitor
NBIA	The National Business Incubation Association
RBV	Resource Based View
SABTIA	The Southern African Business and Technology Incubation Association
SEDA	Small Enterprise Development Agency
SME	Small and Medium Enterprises.
SMME	The Small, Medium and Micro Enterprise
TEA	Total Early-Stage Entrepreneurial Activity
UK	United Kingdom
UNISA	University of South Africa
USA	United States of America

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CHAPTER 1: INTRODUCTION TO THE STUDY

1.1 Introduction

South Africa has the most industrialised economy on the African continent and is a leader in most industries. Over the past decade, however, the economy has consistently underperformed (Bowmaker-Falconer, Angus, Meyer & Samsami, 2023; Rogerson & Rogerson, 2021). According to Bowmaker-Falconer, et al. (2023:23) at 8.47%, South Africa's Total Early-Stage Entrepreneurial Activity (TEA) rate was below the average of 12.11% for the African region in 2022. The business discontinuance rate (4.85%) was higher than the established business ownership rate (1.84%) in 2022 (Bowmaker-Falconer *et al.,* 2023).

This is concerning as it implies that there are more businesses being closed, sold or otherwise discontinued than there are businesses being continued. It is evident that to drive economic growth in developing countries (Tembe, 2018), small, medium and micro enterprises (SMMEs) need to be developed; business failure needs to be mitigated, and environmental conditions need to enable SMMEs to grow and become competitive within the local and international markets (Tembe 2018; Bowmaker-Falconer *et al.,* 2023).

Business incubators have been identified as essential contributors in alleviating the obstacles faced by emerging businesses hence, facilitating their support and eventual success (Lose & Kapondoro, 2020). Consequently, business incubators have emerged in large numbers to support and grow sustainable and profitable small and medium enterprises (Msimango-Galawe & Hlatswayo, 2021). However, the effectiveness of these programmes is still questionable and the fact that there is no standard measure to assess their effectiveness accurately exacerbates the problem (Lose & Kapondoro, 2020; Masutha & Rogerson, 2014a; Msimango-Galawe & Hlatshwayo, 2021).

Once nascent businesses have spent a period of three years in an incubation programme, they graduate or exit the incubator facilities into the market or business environment. These businesses are therefore expected to utilise the skills provided in the business incubation programme as survival tools (Barbeau, 2019). A business incubator, in this research study, is conceptualised as an institution that is aimed at equipping SMMEs with the necessary skills needed to grow sustainable businesses and create jobs; by providing business development and training support services, creating linkages and networks and providing infrastructure support services to SMMEs (Tembe, 2018; Indiran, Nallaluthan, Baskaran & Dalayga, 2021). This chapter delineates the context of the research about the support mechanisms provided to SMMEs via business incubation programmes and further analyses the problem statement and the justification for undertaking the investigation.

1.2 Background to the Study

The Gauteng province is situated in central South Africa and includes cities such as Johannesburg and Pretoria. The region is the only major metropolitan region in the world not located next to an ocean or major river system (Meyer, 2021). The Gauteng province had strong economic growth from 2009 to 2014 of 3.1% per annum, but growth has been low and slow from 2014 to 2019 at 1.1%. In terms of population density, in 2009 Gauteng province had a density of 649 per square kilometre and has an increased rate of 2.8% per annum (Meyer, 2021). There are 2.3 million entrepreneurs in South Africa, with 34% in the Gauteng province making the province a hub for small and micro business development in South Africa (Khoza and Msimango-Galawe, 2021).

However, establishing and operating a new business is a vital process in any dynamic economy. New businesses bring new jobs, increased incomes and added value, often by introducing new ideas, technologies and products to society. The successful new business hastens structural change, harnessing resources to produce the goods and services that people want but, crucially, which they are also prepared to pay for. Of

course, not all new businesses grow and prosper (Hill, Ionescu-Somers, Coduras, Guerrero, Roomi, Bosma, Sahasranamam & Shay, 2022; Lose & Mapuranga, 2022; Mishra & Zachary, 2015). However, failure has proven to be an important part of the business development process, encouraging learning and personal growth for entrepreneurs prepared to recover and gain focus (Hill *et al.,* 2022).

Entrepreneurship generates noteworthy social advantages by improving community engagement and vitality. Many entrepreneurs are increasingly delivering environmental payoffs as well by developing and commercialising solutions to some of the world's most challenging sustainability issues such as climate change or sea and land pollution (Hill *et al.,* 2023; Mehmood, Alzoubi, Alshurideh & Al-Gasaymeh, 2019).

In South Africa, like many countries a noticeable initiative employed by the government, academia and the private sector to enhance business survival rates is the business incubation programme. The business incubation programme/process aims to offset resource deficits at start-up phases of businesses to ensure business stability, long-term survival and sustainable growth (Serwadi & Amadi-Echendu, 2024).

The focus of business incubators is on assisting and nurturing the development of early-stage business ventures to a level where they can seize opportunities and compete in the market without additional support (Alegre & Parente, 2022). The incubation process allocates a specified period of time to business building and the development of innovations (Iacono & Nagano, 2017). During the incubation period, generally three years, the incubated businesses receive technical and managerial support in addition to logistics, which facilitates their access to funding mechanisms and promotes partnerships with innovation agents (Welter, Sausen & Rossetto, 2020). Mas-Verdu, Ribeiro-Soriano and Roig-Tierno (2015) as well as Van Der Kwast, Vanderstraeten & Mondelaers, (2022), maintains that the incubation process is important in that incubated businesses can acquire competencies that will help them

adapt to the market and prosper after graduating from an incubator (Serwadi & Amadi-Echendu, 2024).

According to Bakkali, Messeghem, Sammut and Swalhi (2021), the extent to which these support tools work together is of fundamental importance to the survival and growth of incubated businesses after graduation. Furthermore, the rapid development of business incubators has attracted academic consideration regarding their role in economic development, while other researchers have examined the geographical distribution of these incubators nationwide to determine if SMMEs are receiving satisfactory business development and growth support (Tembe, 2018).

However, with studies conducted, less emphasis has been put on analysing the survival of businesses post-incubation. Limited information exists relating the survival or exit dynamics of nascent businesses post-incubation, as businesses are faced with the reality of having to nurture their businesses on their own without the support from a business incubation facility or structure (Gerlach & Brem, 2015; Lose & Kapondoro, 2020).

1.3 Problem Statement

The theory of business incubation, according to Hackett and Dilts (2004), explains how business incubators and the process of business incubation increase the likelihood that new ventures will survive the early stages of development. According to Bose, Kiran and Goyal (2019); Wolnaik,, Skotnicka-Zasadzien and Grebski (2023), although there is some evidence of studies showing the significance of business incubation services globally; there is limited information on whether businesses survive on their own after exiting an incubation programme.

Schwartz (2013), as well as Paula, Santos and Couto (2023), state that businesses enter into a high-risk period after graduating from an incubation programme that may last up to three years after incubation. This is a concern because, according to Barbeau (2019), businesses normally begin to show signs of growth only after leaving

the incubator. Therefore, it is largely unknown as to whether incubation really acts as a means to overcome the so-called resource deficiencies businesses face, particularly after they have graduated from business incubators (Şehitoğlu & Özdemir, 2013; Sohail, Belitski & Christiansen, 2023). Moreover, there is no profound evidence on the long-term outcomes of incubation and its significance in securing business survival and stimulating business growth (Bakkali, Messeghem, Sammut & Swalhi, 2021; Hackett & Dilts, 2008; Hausberg & Korreck, 2021).

However, global problems and difficulties associated with the survival and failure rates of incubated businesses, as indicative of the incubator's performance, are often neglected (Iacono & Nagano, 2017). Virtanen and Kiuru (2013:25) further pose a question: "Have business incubators impacted new venture survival rates, job creation and industrial innovation rates?" Studdard, Dawson, Burton, Jackson, Leonard, Quisenberry and Rahim (2016) claim that research on incubated businesses should range beyond the incubation period and focus on their post-graduation phase. Iacono and Nagano (2017) argue, in a similar vein, pointing to the fact that despite constituting an important milestone in the development of incubated businesses, graduation per se does not guarantee their future success.

It is, therefore, important that monitoring of graduated incubatees or businesses should be taken into consideration for assessing the incubator's performance; the growth of businesses after graduating from an incubation programme. Empirical research should go beyond the incubation period, as only a few studies explore post-incubator performance of businesses. Graduation from a business incubation programme might be easy, post-graduation survival may not be (Barbeau, 2019; Alzaghal & Mukhtar, 2017; Ravichandran & Dixit, 2024; Guerrazzi, Andraz, Caetano, Serra & Scazziota, 2023). In particular, insufficient attention has been paid to what happens to the businesses when they leave the incubation programmes, i.e. after they graduate, do they survive at all (Schwartz, 2013)? There is minimal knowledge on the survival of businesses after leaving business incubation and what are the support-

specific factors that determine the probability of survival or failure after graduation from the incubation programme (Wachira, Ngugi & Otieno, 2017).

The National Small Enterprise Amendment Act 21 of 2024, assented to on July 18, 2024, aims to enhance support for small and medium businesses in South Africa, particularly to ensure that the small enterprise and co-operative ecosystem is able to offer the most efficient business advice, business development services, investment support, business facilitation and incubator support (Department of Small Business Development, 2025; Hanauer, 2025). However, in South Africa, aspects of the successes and failures of these small business incubation programmes have been investigated by a number of researchers (Van der Spuy & Bornman, 2023; Mkhwanazi, 2023; Zhou & Zondo, 2023). Many of these studies consider the incubation period when evaluating the efficacy of business incubators, although there exists a significant lack in research about the post-graduation phase (Şehitoğlu & Özdemir, 2013; Lose & Kapondoro, 2020). The investigation focused on the influence of business incubation on the long-term development and growth of emerging entrepreneurs' post-incubation as this relationship is not clearly established

1.4 Research Objectives

1.4.1 Primary research objective

To explore if the influence and resources provided during business incubation processes and services enabled entrepreneurs to develop and grow their businesses in the market post-incubation.

1.4.2 Secondary research objectives

a) To explore whether incubators equip incubatees with sufficient resources for continued existence in the market post-incubation.

b) To investigate the influence of business incubation processes on the development of entrepreneurial performance and growth of post-incubatees.
c) To develop a theoretically grounded and practically applicable framework that will address the business incubation process and service gaps identified during and after business incubation.

1.4.3 Main research question

Do the influences and resources provided during business incubation processes and services enable entrepreneurs to exist and grow their businesses in the market post-incubation?

1.4.4. Secondary research questions

a) How are incubators able to equip incubatees with sufficient resources for continued existence in the market post-incubation?
b) How is the influence of business incubation processes on the development of entrepreneurial performance and growth of post-incubatees?
c) How are the main business incubation process and service gaps identified during and after business incubation?

1.5 Research Methodology

Qualitative methodology, methods and techniques were utilised during both the data collecting and data analysis phases of the project. The reason for choosing this approach was that, even though business incubation is a prevalent topic for research generally, there are limited data about South African incubators, particularly the survival of businesses post-incubation. Qualitative research questions focus essentially on three areas: language, actions and theory building through discovering patterns and connections in qualitative data (Dzogovic & Bajrami, 2023). The study employed a qualitative, inductive

approach to provide the researcher with an inclusive understanding of the purpose of business incubators in the growth and development of nascent businesses following incubation. The population for this study were Gauteng entrepreneurs who have graduated or who have exited business incubation programmes as well as incubation managers, mentors and programme developers. The data were collected in three stages:

1.5.1 Literature review

The exponential growth of literature in small business and entrepreneurship research in recent years has made salient just such risk. Thus, there is an urgent need for developing a clear understanding of advancements and state of knowledge stock in the discipline to inform and guide future researchers aiming to advance the field (Kraus, Mahto and Walsh, 2023). Conducting research in the field of post incubation will enhance the growth of literature in a field that may sometimes appear to counter the scholarly goal of developing a greater understanding of dynamics among variables and contexts. By exploring the field of post business incubation may introduce many multifaceted, competing, and occasionally counterintuitive arguments that could promote the advancement of scholarly dialogue

The research objectives and the identified problem statement required a detailed literature review to explore the influence of the business incubation process on entrepreneurial performance and growth post-incubation. Many studies have been done about incubator activities and the tenants of the incubators, such as the review on the current literature on business incubation by Lose, Nxopo, Mazirir and Madinga (2016), but less emphasis has been put to analysing the survival rates of businesses post-incubation (Paoloni & Modaffari, 2022.). Various sources were utilised that included journal articles, books, conference papers and completed theses and dissertations that dealt with the subject matter.

1.5.2 Interviews

Sufficient depth of information needed to be gathered to fully describe the phenomena being studied (Fossey, Harvey, McDermott & Davidson, 2002. The gathered qualitative data was from interviews with respondents who satisfy the selection criteria. They included exited or graduated incubatees. There was focus on companies or incubatees that have exited or graduated from the incubation programme in a period of more than six months.

1.5.3 Focus group sessions

In gaining data from mentors and incubation managers, a focus group interaction was used through a snowball sampling method. Focus groups are facilitated group discussions that make use of the group interaction to explore the research issue being studied, so the use of group processes distinguishes them from individual interviews (Santhosh, Rojas & Lyons, 2021).

1.6 Methods to Ensure Trustworthiness and Creditability

Trustworthiness or rigour of a study refers to the degree of confidence in data, its interpretation and the methods used to ensure the quality of a study (Nazar, Nazar, Rainkie, El-Awaisi & ElJaam, 2022). Trustworthiness has been further divided into credibility, which corresponds roughly with the positivist concept of internal validity; dependability, which relates more to reliability and is also a form of external validity; and confirmability, which is largely an issue of presentation (Downes & Gullickson, 2022). To increase trustworthiness two primary approaches to participant verification were used. The first was providing the interview transcript or an individual case summary to the participant to review, correct, delete, edit, or add to, usually in writing or with an additional interview. This step was undertaken to claim that the transcription or interview was accurate, and that the data collection process is valid (Motulsky, 2021).

A second rationale for transcript review was that of the researcher's desire to share power and involve the participants by providing them the opportunity to correct errors, affirm their original words or add their own revised thoughts or interpretations (Motulsky, 2021). The interviews and focus group sessions were conducted using Microsoft Teams, thereafter the researcher provided access to the interview transcript to all participants to review and correct.

This research ensured credibility using a prolonged engagement approach and member checking approach. Techniques used to establish credibility include prolonged engagement with participants, persistent observation if appropriate to the study, and peer-debriefing, member-checking and reflective journaling. Evidence must also be provided of the iterative interrogation of the data, revisiting it multiple times for examination; negative case analysis or other explanations should also be examined (Amin, Nørgaard, Cavaco, Witry, Hillman, Cernasev & Desselle, 2020).

Furthermore, the triangulation process for this research study entailed an array of techniques, which included individual depth interviews (IDIs), focus groups and literature review. Using multiple sources of data and multiple participants is preferable to triangulate data and to allow significant insights to emerge (Martinsuo & Huemann, 2021).

1.7 Ethical Considerations

All research studies present several ethical and moral dilemmas, which must be identified and addressed prior to carrying out any research study in order to protect all participants from potential harm (Maciak, Pešta & Schindler, 2020). In this study, the researcher obtained consent from pertinent stakeholders, including incubation managers, policy developers and former incubatees, while ensuring the confidentiality of the information provided by respondents who will not be required to disclose their names.

For research that involves the use of human participants, the researcher needs to seek ethical approval from an ethics committee (Xu, Baysari, Stocker, Leow, Day & Carland, 2020). Saunders and Townsend (2016) further expressed that all research that involves human issues requires that ethical approval must be sought by the university's research ethics committee. An ethics clearance certificate was obtained from the university.

The study's results should be advantageous and pose no detriment to the participants or society. The researcher intended to enhance the business development industry by doing this investigation. Privacy and confidentiality were sustained consistently; all findings were presented confidentially, and no personal or identifiable information was documented or published in the study. Audio-recorded interviews were transcribed verbatim; hence, no names will be documented during the interviewing process. Upon transcription, the data were kept in password-protected files with restricted access on an external hard drive, accessible solely to the researcher.

The moralities of the Protection of Personal Information Act (POPIA) of 2020 were applied. The researcher ensured regular review to ensure that only what the participants had given consent to was carried out; this is referred to as a procedure of consent, which enables the researcher to renegotiate features of the consent form derived from the changing description of inquiry (Hatch, 2023).

1.8 Limitations and Delimitations

a) The study provided an investigation of a sample size from the Gauteng Province; however, a national scale evaluation is required to create a nationwide exploration of the influence of business incubators on the survival of business post graduating from a business incubation process.

b) Current literature presents a lack theoretical applications in the support of small and medium businesses post graduating from a business incubation programme.

1.9 Outline of Chapters

The study was organised into seven chapters.

a) Chapter 1 provided a background to the study, emphasising an overview of both the international and South African contexts regarding entrepreneurial performance and its contribution to the gross domestic product. The early-stage entrepreneurial activity was also elaborated upon which this led to the notion of the incubation movement and the formulation of the research problem, examining the impact of business incubators on the performance of businesses after graduation from an incubation programme. Three research objectives were identified followed by the formulation of three research questions.

b) Chapter 2 focused on the theoretical review that arranged the development phases of business incubation. Theories were identified to support the literature on the background of business incubation and its effects as well as its possible influence on post-incubatees. The chapter outlined the dominant approaches to business incubation, and it aimed to clarify the gap between the incubation process and the entrepreneur after exiting a business incubation programme. The chapter created a link between how entrepreneurs think and function. Six theories were analysed: Resource Based Theory, Diffusion of Innovation Theory, Market Failure Theory, Schumpeterian Entrepreneurship Theory, Entrepreneurial Value Creation Theory and the Business Incubation Theory. The two theoretical lenses that were employed in the study, the business incubation theory and the theory of entrepreneurial value creation, were then summed up. The business incubation theory provided inputs and outputs of the business incubation process, and the entrepreneurial value creation theory

provided a foundation and landscape of the entrepreneurship trajectory of the incubatee's ability to use the resources provided to attract the market.

c) Chapter 3 presented the entrepreneurial process in business incubation. The chapter started by defining entrepreneurship and was followed by an analysis of the entrepreneurial opportunity. The two processes were followed by creating an understanding of the entrepreneurial competence in a business incubation process and how it can be a value driver. The entrepreneurial reward process was explained which further led to the integration of the two theories; the business incubation theory was seen and explained to be an input flow process, and the entrepreneurial value creation theory was seen as an output process.

d) Chapter 4 presented the research methodology used. It focused on reasons why the study was exploratory in nature. The intention of Chapter 4 was to provide an explanation for choosing the specific and appropriate methodology to support the research problem.

e) Chapter 5 focused on the presentation of research data. The data from interviews with post-incubatees and data from focus group sessions with incubation practitioners were presented and critically discussed. The contextual patterns of post-incubatees' business performance were identified.

f) Chapter 6 examined the findings outlined in Chapter 5. The chapter presented a comprehensive analysis of the data, highlighting the principal themes and major conclusions. The section further led to the development of proposed frameworks.

g) Chapter 7 – this chapter focused on key recommendations to the literature, small business development industry, incubation practitioners and financial development institutions.

1.10 Conclusion

Chapter 1 served as an introduction to the thesis. It presented the context of the study, emphasising the research topic and aims. Study limitations were expressed. The chapter concluded with an outline of the research sections. The subsequent chapter will analyse the literature underpinning the Gauteng-based case study to explore the influence of the business incubation process on entrepreneurial performance and growth post-incubation.

CHAPTER 2: THEORETICAL REVIEW: THE INFLUENCE OF BUSINESS INCUBATION PROCESSES ON THE PERFORMANCE OF BUSINESSES POST-INCUBATION

2.1 Introduction

This chapter displays the development and stages of business incubation and the theories supporting the literature on the background of business incubation and its influence and ability to provide sufficient resources for continued existence in the market post-incubation. Evolutionary academics argue that the selection mechanisms that eradicate uncompetitive businesses are essential for maintaining robust organisational populations (Gearen, 2024).

Several research theories such as the new venture creation theory, social network theory, dyadic theory and the real options theory have been developed and adopted to explain the process and the impact of business incubation since its beginning (Bürger & Vecco, 2020; Ollerenshaw, Murphy, McLaren & Thompson, 2024; Valeri & Baggio, 2021). However, most theories are more of a linkage to the incubation process and not necessarily formulated for the principles and ideas of business incubation in relation to the field of entrepreneurship (Valeri & Baggio, 2021).

To select a supporting theory for this study, the researcher conducted an exploration of theoretical methodologies used to assess the role of business incubation experienced during the success of an entrepreneur's journey. The investigation of the different theories provides a seed for argument, debate and deliberation regarding scholarly substantiations and contributions (Jansson, Johansson & Sandahl, 2023).

In investigating the impact of business incubation processes on the development of entrepreneurial performance and the growth of post-incubation ventures, this chapter will outline the dominant approaches to incubation as it aims to clarify the gap between

the incubation process and the entrepreneur after exiting an incubation programme. The researcher will also consider the relevant methods that have been applied through theory building and their weaknesses and strengths. The chapter concludes by creating a further linkage of how entrepreneurs think, act, learn and develop; implementing this into business incubation studies by using the existing and emerging theoretical knowledge base that can be gained from the entrepreneurship literature.

2.2 Theoretical Framework of the Study

A total of six proposed theories were accessed in exploring if influence and resources provided during business incubation enabled entrepreneurs to develop and grow their businesses in the market post-incubation. However, only two theories were chosen to support the research study. The theories are discussed as follows:

2.2.1 Resource-based theory

The premise for the resource-based theory is that performance of an entity differs based on its resources and how businesses keep unique and sustainable positions in the competitive environments (Lange, 2018; Barney, Ketchen & Wright, 2021). According to the resource-based theory, the exploration is based on efficiency-based differences and the way they compete with other businesses according to their access to resources and capabilities (Barney, Ketchen & Wright, 2021; Handoyo, Suharman, Ghani & Soedarsono, 2023).

According to Lange (2018), entrepreneurs may seek to resourcefully garner needed resources and capabilities to compete in the market. The resourced-based view of the business, which is the principal conceptual paradigm of strategic management at present, is based on the guiding principle that the set of capabilities and resources is crucial for determining the competitiveness of a firm (Zahra, 2021).

Other researchers took on this idea when proclaiming that the competitive positioning of market participants is dependent on their ‘dynamic capabilities’. ‘Dynamic’ here presents a continuous change of a business incubation environment whereas ‘capabilities’ relate to the challenge for strategic management in “appropriately adapting, integrating, and re-configuring internal environment” (Teece, Pisano & Shuen, 1997 as well as Lange, 2018:33; Lorh, 2013).

Lose (2021), explored the competitiveness of business incubators across eight provinces in South Africa. The resource-based theory was used as a lens to assess the resources for the competitiveness of incubators in South Africa. Using the resource-based view theory, the analysis of data collected provided evidence that there are valuable, rare, difficult to imitate and difficult to substitute physical capital, human capital and organisational capital resources that are essential for the competitiveness of the incubators. However, it presented a need for further investigation in the impact of initial resources provided at the inception of a business incubation programme and how they are applied by small and medium enterprises in the market after graduating from an incubation programme.

The resource-based view (RBV) of the firm offers a theoretically thorough framework for evaluating strengths and weaknesses, allowing for the analysis of these factors in relation to the standards set to attain a sustained competitive advantage. Adopting the resource-based view (RBV) framework keeps the focus on the provision of value as well as the durability of the resulting advantages. This paradigm obliges managers to evaluate the consequence of asserted capabilities in the marketplace; specifically, do they deliver value to customers (Kero & Bogale, 2023; Pereira & Bamel, 2021)?

According to Lohr (2013), in order to assert its competitive positioning in a marketplace, a business is not only required to develop unique capabilities but also needs to constantly adapt its capabilities to environmental changes. Jafari-Sadeghi, Mahdiraji, Bresciani and Pellicelli (2021) linked the previously mentioned resource-based view to the aspect of firm internationalisation by asserting that a firm's

internationalisation process is contingent upon its resource base and its capacity to improve resources (resource building) and to utilise those resources (resource leveraging) within the international context. Following this approach in understanding the post business incubation survival and the application of resources, companies with weak resource building and leveraging capabilities are expected to experience a rather evolutionary and incremental internationalisation path (Lohr, 2013). Consequently, the researcher would refrain from utilising the RBV theory and rather consider the diffusion of innovation theory as it brings in many aspects that differ in relation to the reasons, methods and proportions at which new ideas and technologies are embraced.

2.2.2 The diffusion of innovation theory

The theory of diffusion of innovations (DOI) is the seminal work of communication scholar and sociologist Everette M. Rogers (1931–2004). DOI research lures upon rational theories of organisational life adopted from sociology, management and communication theory (García-Avilés, 2020). It formulates prediction models of the spreading phenomenon that seemingly assist technology implementers in enhancing dissemination of selected technologies (García-Avilés, 2020). The opinion of a new technological progression is reliant on the distinguishing element and social class of the adopters. It compels the entrepreneur to consider the target market based on their current need and market their new product based on the classification suggested in this theory (Sartipi, 2020).

For the entrepreneur to succeed in his commercialisation process, he should understand the requirements of his target market (Sartipi, 2020; Nordhoff, Malmsten, van Arem, Liu and Happee, 2021; Mvulirwenande & Wehn, 2020; Bodolica & Spraggon, 2021; Nair & Blomquist, 2019; Vargo, Akaka & Wieland, 2020). In the case of business incubation and post-incubation, the theory provides the lenses needed to focus on the entrepreneur’s product or service’s ability to perform or sell in the market, given the different segments and challenges relating to competition and market penetration.

According to Nair and Blomquist (2019), the diffusion of innovation theory seeks to give details that pertain to why, how and at what rate new thoughts and technology are absorbed. This theory brings in different disciplines that vary respectively. Getting a new idea to be adopted and accepted can be such a difficult task and that is the grounds for the interest in the diffusion of innovations theory; this is because it takes a long time (Kibuchi, 2016).

Most institutions are having the problem of trying to accelerate this rate of adoption where the rate of adoption is the rate at which an innovation is well taken up by members of a community. The rate of adoption is calculated based on the number of people who take up the new idea or innovation within a particular period (Kibuchi, 2016). This is represented by an arithmetical curve for innovation (Rogers, 1985 as well as Tola & Contini, 2015), as illustrated in Figure 2.2.

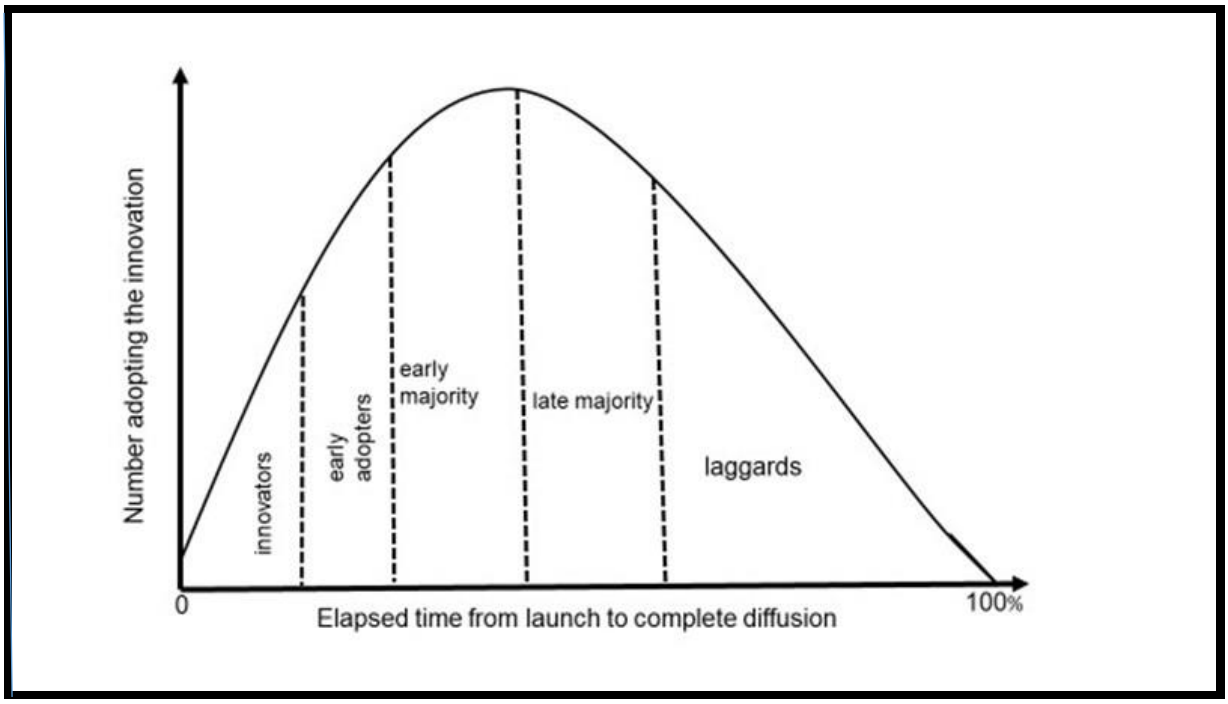

Figure 2.1: Arithmetical curve for innovation (Source: Rogers, 1985 as well as Tola & Contini, 2015)

According to Rogers (1985) as well as Tola & Contini (2015), in Figure 2.1, the curve is segmented into five distinct groups of people:

a) The first group are the innovators; highly educated and risk-oriented people with control over funding sources and specific skills that enable them to understand and apply technical knowledge with exposure to several information sources.
b) The second group include the early adopters; people with high levels of education and reputation in their communities who possess the capability to achieve social leadership and who have successful experiences in their personal histories.
c) The third group is called the early majority; developed by people who have strong interactions with their peers they often occupy leadership positions and have the tendency to follow a deliberative process before adopting a new idea.
d) The fourth group is the so-called late majority; a group that usually includes sceptical and traditionalist subjects with a low status. The members of this group are typically highly cautious and endure social pressure applied by their peers.
e) The laggards are the last group; usually isolated and suspicious subjects with little or no external social interaction (only neighbours and close relatives). They follow a time-consuming decision-making process and have little resources to make those decisions (Tola & Contini, 2015).

Therefore, according to Schumpeter (1942, cited in Ziemnowicz, 2020), an economy can survive only if the entrepreneurs keep on innovating, thus contributing to the global competitiveness; in this way the processes of diffusion of technological innovations can have a relevant influence on businesses and on the whole economic system (Rogers, 1962, cited in Das, 2022). This is where the importance of business incubators comes from; a facility that speeds-up and systematises the enterprise creation and start-up process, providing them with a large choice of integrated services

i.e. physical space (offices, meeting rooms, labs etc.), business support services and integration and networking opportunities (Blanck & Ribeiro, 2024).

Research by authors such as Games, Kartika, Sari and Assariy (2021), demonstrated the significance of applying the technological skills received from business incubation services in the commercialisation of goods and services. However, the use of this theory within the context of South African business incubators, where 26% (the dtic, 2024:11) are in the manufacturing industry and of those only 11% (the dtic, 2024:11) in industries related to innovation and technology, might present a one-sided approach in requiring the researcher to focus on the diffusion of specific innovation trajectories.

On the other hand, the researcher might have to quantify how innovation supply tends to consolidate around the cultivation of an entrepreneurial ecosystem through business incubators. The theory adequately supports the technological development of an incubatee but it omits other entrepreneurial development aspects and the distribution of resources as depicted in the resource-based value theory. The researcher will, therefore, not apply the diffusion of innovation theory in this study. In closing this gap, the researcher considered the market failure theory to understand the process of avoiding business failure by both the incubator and the incubatee. The market failure theory was also considered and is discussed in the following section.

2.2.3 Market failure theory

The theoretical foundations in the incubator-incubation literature are rooted in market failure arguments, which can be expounded on through the market failure theory. The theorising and research about incubators have been primarily anchored in market failure perspectives and carry over the assumptions about a free market economy, most implicitly into the empirical work (Tang, Baskaran, Pancholi & Lu, 2013 as well as Narayanan & Shin, 2019).

In this research study, the researcher could apply the market failure theory to understand the practice of avoiding business failure by both the incubator and the incubatee. From an economist's viewpoint market failure is seen as the problem of income distribution and permits exclusive attention to Pareto[1] efficiency (Bator, 2024). Market failure is an inefficient distribution of goods and services in the market (Bator, 2024)

Market failure occurs when the viable interactive environment for the creation and distribution of products and concepts fail to achieve a desired outcome (Greve, 2022). Sources of market failure include externalities, imperfect information, monopolistic power and public goods (Greve, 2022; Benli, 2022). Kemp (2013) addressed the application of market failure theory to business incubation where market failure is defined as the condition in which competition in the manufacturing and sale of goods and services does not yield the desired results, in the case of this study, the creation and growth of new businesses. Kemp (2013), as well as Chao (2020), offer a more detailed application of this theory by creating a differentiation of business incubators; accelerators that work with high-growth and high potential businesses and germinators that work with nascent businesses. The same authors argue that facilities operating in areas of market failure are mainly those working with new, rather than high-potential, ventures (Kemp, 2013; Chao, 2020).

While this theory of market failure elaborated in amplifying the role of incubators, it does little in explaining the processes operating inside an incubator, which includes the resources applied in the different stages of incubation (Kemp, 2013). However, the application of the theory neglects the influence of the institutional setting and

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Pareto efficient, or Pareto optimality, is an economic state where resources cannot be reallocated to make one individual better off without making at least one individual worse off. Pareto efficiency implies that resources are allocated in the most economically efficient manner but does not imply equality or fairness.

complicates the processes potentially involved in rising economies like South Africa. Therefore, the researcher will not apply the market failure theory to examine the components of business incubation that affect the success of businesses following their exit from a business incubation programme.

2.2.4 The Schumpeterian entrepreneurship theory (Economic and innovation method)

Joseph Alois Schumpeter (1883–1950) was one of the founders of entrepreneurship literature (Schumpeter, 2019). According to Schumpeter, another quality of an entrepreneur that makes him important, aside from taking risks, is that he be innovative. An entrepreneur works on innovations never done or even tried before (Schumpeter, 2019). As a matter of fact, with the innovations he brings, the entrepreneur disrupts the status quo of the market, providing new goods and/or services instead of already existing goods and/or services. The status quo disrupting quality of the entrepreneur is defined as destructive entrepreneurship (Akkuş, 2024). Despite being almost, a century old the Schumpeterian theory of entrepreneurship continues to captivate significant interest. Joseph Alois Schumpeter is seen as the forerunner of the subsequent entrepreneurship model with the emphasis on entrepreneurship as a varied business activity i.e. planning and organisation of financing, production etc. (Mehmood, Alzoubi & Ahmed, 2019; Adler, 2019).

Above all, the approach is about taking responsibility for business success and failure (Mehmood *et al.,* 2019). Schumpeterian entrepreneurship theory associates entrepreneurship not only with organisations of businesses, but also with innovations or continuous business development (Boyle, 2017; Mehmood *et al.,* 2019; Adler *et al.,* 2019; Malerba & McKelvey, 2020; Emami Langroodi, 2021).

According to Schumpeterian entrepreneurship theory, the human factor emerges as the dominant factor in business and economic development (Mehmood *et al.,* 2019). The use of the Schumpeterian entrepreneurship theory in this research study offers

the lenses to understand that entrepreneurs are not just moved by profit intentions, but also by the higher and non-peculiar values behind entrepreneurial activities and novelties that may be regarded as higher value accomplishments like social welfare and poverty eradication or helping the poor (Mehmood *et al.,* 2019).

In economic terms, important characteristics of the Schumpeterian entrepreneur are that he is a risk taker and develops new combinations when engaged in the process of turning ideas and inventions into innovations (Malerba & McKelvey, 2020). Nieman and Nieuwenhuizen (2009) define an entrepreneur as an individual who identifies a market opportunity and assembles resources and creates and grows a business venture to meet these needs. The needs include a pursuit for achievement, a need for economic growth, poverty eradication, and employment creation (Botha, Nieman & Van Vuuren, 2006; Nieuwenhuizen, 2009; Smith & Chimucheka, 2014). However, Miller (1988, cited in Kobia & Sikalieh, 2010), as well as Salmony and Kanbach (2022), argue that, if trait theories present characteristics common to most entrepreneurs, those individuals who do not possess these characteristics could be excluded. It is in this regard that Gartner (1989:29, cited in Obiekwe, 2023), posits that trait approaches seek to answer the wrong question: “Who is an entrepreneur?”

More recent studies, for instance the meta-analysis of the personality factors by Rauch and Frese (2007), as well as Howard & Boudreaux (2024), as well as Kruse, Wach and Wegge (2021), showed that personality factors do indeed play a role in the explanation of business creation. However, one such definition, which supports Schumpeterian entrepreneurship theory, relates to the behaviours of a risk-taker whereby entrepreneurship is seen as a creative venture in a new business or the one who revives an existing business (Malerba & McKelvey, 2020).

According to Malerba and McKelvey (2020), the analysis of the theoretical traditions inspired by Schumpeter regarding entrepreneurs leads to the following insights: The entrepreneur: (a) takes risks and reaps profits, (b) turns technology and ideas into innovations in the market, (c) enables new combinations, (d) faces uncertainty about

current choices in relation to future outcomes and (e) creates opportunities, by both driving and adapting to change in the external environment.

The ‘Schumpeterian entrepreneur’ – can lead to more targeted efforts in promoting high-potential entrepreneurs, since ‘simply encouraging more people to become entrepreneurs is not necessarily the best policy for enhancing economic growth’ (Shane 2009; Arvanitis and Stucki 2012). Much in the same way, it can be of value to practitioners such as VCs or business incubators in their efforts to scout, finance, and promote high-potential innovative start-ups (Block, Fisch, and Van Praag, 2017).

Malerba and McKelvey (2020) further highlight that the key function of an entrepreneur in the economy according to the Schumpeterian theory includes: (a) acting as a disruptive, disequilibrium force, which arises endogenously in the economy and (b) driving wider processes of economic dynamism, which in turn lead to economic growth and well-being.

The Schumpeterian entrepreneurship theory is a classical theory of industrial economics and can be disparaged for its assumptions that markets operate perfectly rationally and at arm’s length. The researcher will not apply the theory as, according to Schwartz and Hornych (2010:19), as well as Sulaiman (2020:18), the theory “…does not describe the experiences of many incubatees, who often depend on personal relations and face-to-face transactions when diffusing their inventions and business ideas.”

A better approach in analysing the character traits of an entrepreneur might be through the entrepreneurial value creation theory as it offers the lenses to examine the interiors of the entrepreneurial process using a two-stage value creation and appropriation framework (Mishra & Zachary, 2015; Kawimbe, 2023), which will be discussed in the next chapter.

Following the Schumpeterian theory of entrepreneurship, the entrepreneurial value creation theory was further developed by Mishra and Zachary (2015) as well as Kawimbe 2023).

2.2.5 The entrepreneurial value creation theory

The entrepreneurial value creation theory explains entrepreneurial value creation and its realisation through a venture. The entrepreneurial value creation process consists of two iterative stages, the venture formulation (Stage 1) and the venture monetisation (Stage 2) (Mishra & Zachary, 2014).

In the first stage of venture formulation the entrepreneur, driven by the entrepreneurial intention or an aspiration for entrepreneurial reward, discovers an external opportunity (or the opportunity may precede the entrepreneurial intention). The opportunity is then leveraged by the entrepreneurial resources at hand using an effectuation mechanism. The entrepreneurial opportunity is reconfigured to develop an entrepreneurial competence, an asymmetric advantage for the entrepreneur (Amit & Han, 2017; Brieger, Bäro, Criaco &and Terjesen, 2021). The entrepreneurial competence embeds the entrepreneurial resources and the reconfigured opportunity for example, proof of concept (Mishra & Zachary, 2015).

In the second stage of venture monetisation, the entrepreneur may obtain external resources such as venture capital or strategic alliances, if necessary, and build or acquire complementary dynamic capabilities. The venture's dynamic capabilities are embedded in the business model design and reconfigure the entrepreneurial competence to sustain value creation and appropriate the entrepreneurial reward (Mishra & Zachary, 2015; Amit & Han, 2017; Indriastuti & Alifah, 2017; Brieger, Bäro, Criaco & Terjesen, 2021). The theory of entrepreneurship diagram by Mishra and Zachary (2015), as well as Zachary (2021), as displayed in Figure 2.2, outlines the two phases of the entrepreneurial process and any associated sub-processes.

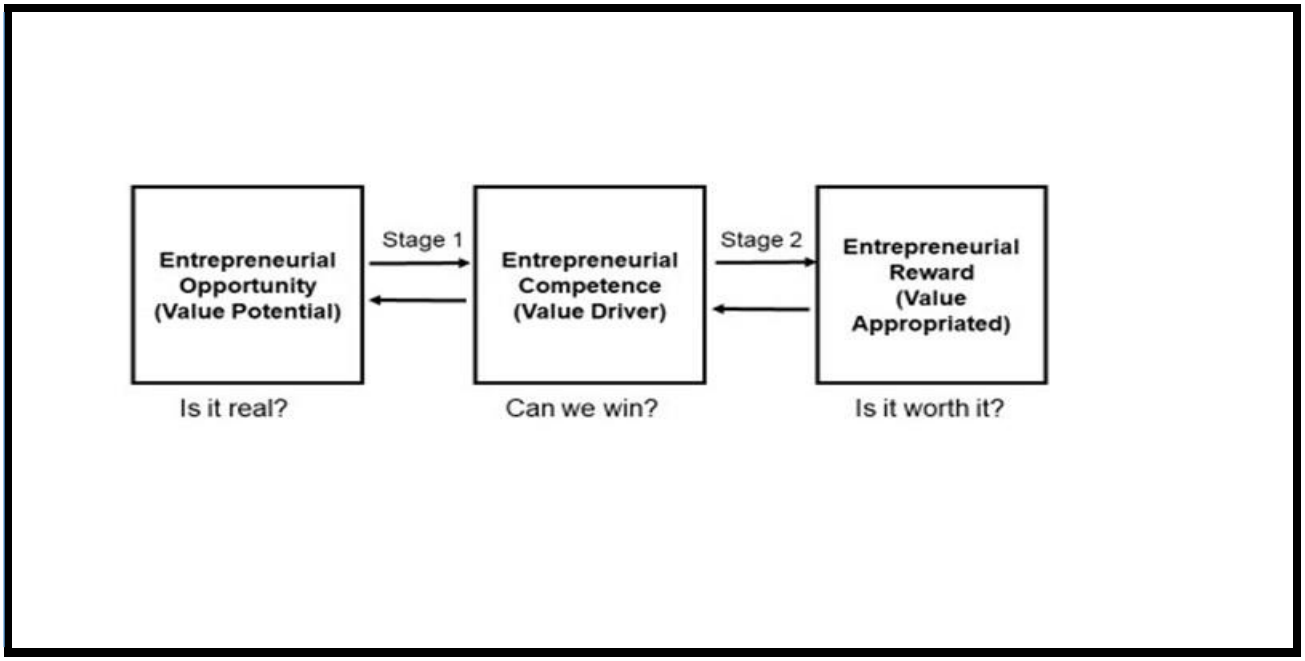

Figure 2.2 Entrepreneurial Value Creation (Source: Adapted from Mishra & Zachary, 2015 as well as Pinelli, Lechner, Kraus & Liguori, 2022)

Figure 2.2 is a synopsis of the value creation process. In stage one, the entrepreneur discovers an external opportunity that has potential value. An inventor may create an invention, but the entrepreneur does not need to be the inventor (Schumpeter, 1934, cited in Pinelli, Lechner, Kraus & Liguori 2022).

The entrepreneurial opportunity is thus exogenous to the entrepreneurial process and the entrepreneur. However, the entrepreneur is instrumental in sensing or seeing the opportunity with the resources at hand and reconfigures it, levered by the resources to create an entrepreneurial competence (Mishra & Zachary, 2015).

The sub-processes of the opportunity discovery and the formulation of the entrepreneurial competence, driven by the entrepreneurial intention or an aspiration for entrepreneurial reward, comprise the stage one - value creation (Mishra & Zachary, 2015). Guerrero, Urbano and Gajón (2020); Andersson and Müller (2023), as well as Peters, Rice and Sundararajan (2004, cited in Tembe 2018) applied this process in a model to test how incubators influenced the entrepreneurial process. By examining

the services offered (infrastructure, coaching and networks) and comparing the level of services offered at different incubators in the United States with graduation rates (Kemp, 2013). While they concluded that incubators facilitated entrepreneurship, they acknowledged that studying graduation rates alone did not sufficiently explain how entrepreneurship was being fostered (Kemp, 2013).

The entrepreneurial value creation theory presents an opportunity in this study to analyse the different stages of entrepreneurship, and the researcher will apply the entrepreneurial value creation theory in this study as it creates a platform for analysing the cognitive approach of the entrepreneur after exiting or graduating from a business incubation programme. The theory of business incubation will be introduced in the next section, and it will further provide lenses of the idea formulation, decision to proceed and resource gathering stages on an entrepreneur during an incubation period.

2.2.6 Theory of business incubation

The process of the business incubation concept has spread worldwide in many forms, powered by an outpouring of interest in how the incubator could stimulate economic development (Lanham-New, 2020; Theodorakopoulos, Kakabadse & McGowan, 2014, Ayatse, Kwahar & Iyortsuun, 2017). Despite this attention, there is little agreement in the literature regarding “what business incubation is, or should be, and which factors contribute to successful business incubation and post business incubation” (Theodorakopoulos *et al.,* 2014:603; Jones, Meckel & Taylor, 2021).

Moreover, other scholars, including Ahmad (2014), Ayatse, Kwahar and Iyortsuun (2017), Bushe (2019) and Akpoviroro, Oba-Adenuga and Akanmu (2021), contend that the failure of new initiatives during their initial stages of development is a prevalent phenomenon. The persistent expansion of business incubation services since 1980 indicates that numerous governments, local communities and private investors consider it advantageous to assist promising businesses in circumventing failure by nurturing them until they establish self-sustaining business frameworks (Hackett &

Dilts, 2004; Iacono & Nagano, 2017). The principal effort to systematise the literature appears to be that of Hackett and Dilts (2004). The theory of business incubation clarifies how business incubators and the incubation process improve the survival prospects of nascent businesses during their early development phases (Lanham-New, 2020; Hackett & Dilts, 2004).

An incubator is an entrepreneurial business that supports the innovation process by identifying and managing nascent companies with moderate potential, supplying them with developmental means during a business growth process while reducing the costs linked to possible failure (Kiran & Bose, 2020; Kibuchi, 2016).In this view, the incubator is as a facility where resources can be wisely invested in phases to reduce any market failure possibilities. Because most incubators do not take equity positions in the incubatees' businesses but depend on rental and services revenue as well as public and private grants and sponsorships, incubators are able to select and nurture ventures that have a greater likelihood of failure and reverse the possibility of failure (Paoloni & Modaffari, 2022; Iacono & Nagano, 2017).

Therefore, according to Hackett and Dilts (2004), as well as Subrahmanya & Krishna (2021), the business incubation theory has five different, yet equally important incubation inputs namely, idea formulation, decision to proceed, resource gathering, launching of a new business and business development. The theory delineates the anticipated outcomes upon the conclusion of the incubation process: the incubatee is thriving and achieving profitability; the incubatee is surviving and developing or progressing towards profitability; the incubatee is surviving but not expanding and is either unprofitable or only marginally profitable; the incubatee's operations were ceased while still in the incubator, with minimised losses; or the incubatee's operations were terminated while still in the incubator, resulting in substantial losses.

The business incubation theory is significant as it offers the lenses to emphasise exploration orientations, rather than merely providing a description of the incubation process (Lanham-New, 2020). The theory elucidates concerns related to

comprehending the incubation operations. This study will use the theory of business incubation, utilising the academic framework provided by the five recognised incubation inputs: concept formulation, decision to proceed, resource collection, launching of a new firm and firm development.

Table 2:1 provides a summary and analysis of the theories considered for this study. A SWOT analysis of the theories explored by the researcher is summarised to use as a guide on which theory is more useful and appropriate to the current study. The main theoretical lenses are the incubation theory and the entrepreneurial value creation theory.

Table 2.1: Summary of Theories (Source: Own Compilation)

Theory	Description	Strength	Weaknesses	Opportunities	Threats	References
Theory of Business Incubation	The theory of business incubation seeks to predict and explain how business incubators and the process of business incubation increase the likelihood that new ventures will survive the early stages of development.	It conceptualises the incubator as an entrepreneurial firm that sources and macro-manages the innovation process within emerging businesses, infusing these businesses with resources at various developmental stage-gates while containing the cost	While this theory goes some way to explaining the role of incubators, it does little in explaining the processes operating inside the walls.	The incubator is the unit of analysis while incubation outcomes are measured in terms of incubatee growth and financial performance at the time of incubator exit—providing	Limited only to the business incubation process.	Hackett and Dilts (2004); Ayatse, Kwahar & Iyortsuun (2017); Iacono & Nagano (2017); Ihnatenko *et al.* (2019); Kibuchi (2016); Kemp (2013); Lamine, Mian, Fayolle, Wright, Klofsten & Etzkowitz (2018).

		of their potential failure.		indicators of success.		
Market Failure Theory	Refers to describing market failure as occurring when competition for the production and sale of goods or ideas fail to produce a desired outcome — these cases can lead to the creation and development of new businesses.	Amenities working in areas of market failure are mainly those working with original rather than high-potential ventures.	While this theory goes some way to explaining the role of incubators, it does little in explaining the processes operating inside the walls.	Theory does not clearly indicate mitigation strategies to avoid market failure, particularly in relation to incubatees.	Imperfect information, monopolies and additional external factors can obstruct the development of the new firm.	Kibuch (2016); Hannon (2017); Hackett & Dilts, (2004); Kemp (2013).
Schumpeterian Entrepreneurship Theory (Economic and	Schumpeterian entrepreneurship theory associate entrepreneurship, not only with	According to the theory, entrepreneurship pertains to the actions of a risk	Classical theories of industrial economics can be criticised for	Schumpeterian entrepreneurship theory links	The theory assumes a perfect equilibrium of markets.	O'Boyle (2017); Mehmood *et al. (*2019); Malerba & McKelvey (2020); Adler (2019); Langroodi (2021); Schwartz (2013).

Innovation Approach)	organisations of businesses, but also with Innovations or continuous business development.	taker's creative venture into a new business or the one who revives an existing business.	their assumptions that markets operate perfectly rationally and at arms' length. Such assumptions generally fail to accurately represent the experiences of numerous incubatees who typically depend on personal contacts and direct interactions when	entrepreneur ship not only with organisations of business, but also as innovations or ongoing corporate development.		

			disseminating their encounters.			
The Entrepreneurial Value Creation Theory	The entrepreneurial value creation theory further examines the interiors of the entrepreneurial process using a two-stage value creation and appropriation framework.	The theory integrates the ideas from several disciplines including economics, psychology, sociology, finance, decision sciences and strategy, among others, to explain the dynamics of a complicated and disorderly entrepreneurial process with a parsimonious model.	The theory does not provide a review of the extant literature on entrepreneurship.	The theory examines the interiors of the entrepreneurial process using a two-stage value creation and appropriation framework.	The theory assumes a perfect equilibrium of markets.	Mishra & Zachary (2015); Brickson (2007); Amit & Han (2017); Indriastuti & Alifah (2017); Brieger *et al.* (2020).

Resource-Based Theory	The basis for the resource-based theory is that the performance of an entity varies according to its resources and the manner in which businesses sustain distinctive and sustainable positions within the competitive setting. The theory focuses on efficiency-based differences and how they compete with other businesses based on their access to	The theory focuses on efficiency-based differences and how they compete with other businesses based on their access to resources and capabilities (Lange & Johnston, 2020).	Capabilities are typically regarded as the most powerful source of competitive advantage, but any given capability is likely to be replaced by a superior capability This results in the issue of infinite regress with the result that marketing can never anticipate finding the definitive source	When applying resource-based theory to the business incubation processes, the achievement of sustainable competitive advantage is considered within a wider and fundamental framework by highlighting competing businesses.	Limited to a particular set of resources.	Lange & Johnston (2020); Miles (2012); Ferreira, Serra, Costa and Almeida, 2016 ; Lohr (2013);

	resources and capabilities		of competitive advantage.			
Diffusion of Innovation Theory	It contends that creativity or innovation relies not only on technological proficiency but also on the collective process.	The theory seeks to give details on why, how and at what rate new thoughts and technology are absorbed.	The time between invention and realising a market return can be long.	A collaborative process is key in the innovation process.	Processes seem longer.	Sartipi (2020); Mvulirwenande & Wehn (2020); Bodolica & Spraggon (2021); Vargo *et.al*. (2020); Nair & Blomquist (2019).

Following a summary of considered and selected theories, the linkage between the two chosen theories (business incubation theory and the entrepreneurial value creation theory) is discussed in the following section:

2.3 How the Business Incubation and Entrepreneurial Value Creation Theory Will Be Used as a Lens for This Study

The two theoretical lenses employed in this study, namely the business incubation theory and the entrepreneurial value creation theory, are outlined in Figure 2.3; detailing their main conceptions and allied attributes as well as the various constructs that will help to explain the thoughts that support the study. In this study, each of the two theories offers a unique focus that needs to be viewed as a whole. The business incubation theory will provide a lens of the recognised inputs and outputs of the incubation process, and the entrepreneurial value creation theory will provide a foundation regarding the entrepreneurship trajectory of the incubatees' ability to take risks and reap the benefits after exiting or graduating from the programme. The integration of the two theories will provide a solid foundation for a better understanding of incubation and entrepreneurial processes.

The theory of business incubation will further inform the analysis of the stages of incubation in the study. The entrepreneurial value creation theory will further analyse survival mechanisms of the entrepreneur in relation to entrepreneurial opportunity, entrepreneurial competence and entrepreneurial reward. Figure 2.3 will be unpacked as the concepts of business incubations and specific linkages are made on whether businesses survive after exiting an incubation programme. Figure 2.3 further demonstrates the integration of the theoretical lenses of the study.

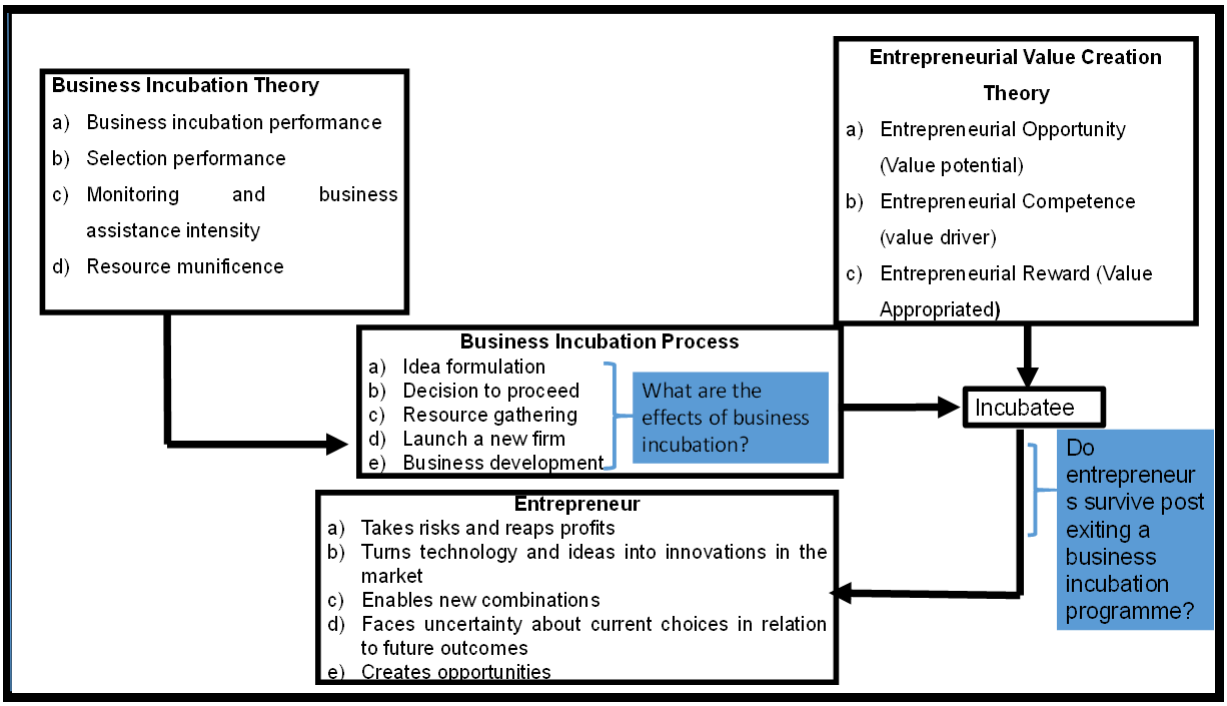

Figure 2.3: Integration of Theoretical Lenses (Source: Own Compilation)

2.4 Business Incubation Concepts and Principles

Business incubators focus on facilitating the development of nascent-stage technology-based companies to a point where they can capitalise on commercial possibilities and compete independently in the market (Ayaste, Kwahar & Iyortsuun, 2017). Incubators are regarded as effective policy instruments that facilitate entrepreneurial expansion by fostering new businesses throughout their developmental stages. Policymakers consider business incubators as optimal instruments for fostering the advancement of technology-driven and growth-focused businesses. Incubation programmes are typically formed through public-private partnerships involving universities, industry and various government tiers; promoting technology transfer and product dissemination by nurturing innovative concepts into businesses, thereby enhancing regional economies through the establishment of new businesses (Mian, Lamine & Fayolle, 2016; Mian, 2021; Galbraith, McAdam & Cross, 2019).

Results suggest that approximately 7,000 incubators exist, with roughly one third located in the United States, while the remainder are distributed among other industrial nations including Europe, Australia, Japan and Canada: industrialising or restructuring countries such as China and Brazil (Lalkaka, 2006). Although there is some overlap in the objectives and functions of business incubation centres, business support centres and other business development services, each possesses unique characteristics and fulfils a specific role in various contexts (Lalkaka,

2006, as well as Gurgel & Rodrigues, 2017). Various types of business incubation programmes have been implemented in South Africa since the early 1990s, beginning with the creation of business hives and evolving in the early 2000s to prioritise enhanced access to technologies and technical support for small businesses, aimed at improving their competitiveness and reducing failure rates, which ultimately resulted in the establishment of business incubators (Rogerson, 2017). This section will evaluate the definition of business incubation within the context of business incubation theory to assess if the support and resources provided during incubation aid entrepreneurs in their development and expanding their businesses in the market after incubation.

2.4.1 Definition of business incubation through the theoretical lens of the business incubation theory

The literature on business incubation is categorised into two domains: academic and industry based. Scholars have primarily focused on the evolution of incubation and/or on a specific element of the process (Theodorakopoulos, Kakabadse & McGowan, 2014). Incubator associations like UK Business Incubation (UKBI) and the National Business Incubation Association (NBIA), as well as various consultancy businesses have centred their attention on incubators and the positive impact they have on new start-ups and on the economic environment through evaluation studies and identification of best practice (Dee, Livesey, Gill & Minshall, 2011; Theodorakopoulos *et al.,* 2014). Nonetheless, there is still no universally accepted definition of business incubation and Table 2.2 displays, in chronological order, commonly adopted definitions of business incubation in the literature (Hu, Ahmad & Lu, 2023; Theodorakopoulos *et.al.,* 2014). Table 2.2 provides definitions of business incubators and how they are perceived by different authors.

Table 2.2: Definitions of Business Incubation (Source: Kemp, 2013; Theodorakopoulos *et.al.,* 2014)

Author	Definition
Hackett and Dilts (2004)	A business incubator is a shared office-space facility that seeks to provide its incubatees (i.e. portfolio, client or tenant companies) with a strategic value-adding intervention system (i.e. business incubation) of monitoring and business assistance.
Hughes, Ireland and Morgan (2007: 155)	A business incubator is a facility that houses young, small businesses to help them develop quickly into competitive businesses.

Eshun (2009: 156)	A business incubator is an environment formally designed to stimulate the growth and development of new and early-stage businesses by improving their opportunities for the acquisition of resources aimed at facilitating the development and commercialisation of new products, new technologies and new business models. Business incubation is also a social and managerial process aimed at supporting the development and commercialisation of new products, new technologies and new business models.
UK Business Incubation UKBI (2009: 2)	Business incubation is a unique and highly flexible combination of business development processes, infrastructure and people designed to nurture new and small businesses by supporting them through the early stages of development and change.
American National Business Incubation Association NBIA (2024: 1)	A business incubator is a business support process that accelerates the successful development of start-up and fledgling companies by providing entrepreneurs with an array of targeted resources and services. These services are usually developed or orchestrated by incubator management and offered both in the business incubator and through its network of contacts. A business incubator's main goal is to produce successful businesses that will leave the programme financially viable and freestanding. These incubator graduates have the potential to create jobs, revitalise neighbourhoods, commercialise new technologies and strengthen local and national economies.
Mian (2014: 1)	Business Incubator is a facility designed to accelerate the growth and success of entrepreneurial companies through an array of business support resources and services that could include physical space, capital, coaching, common services and networking connections.

According to Kemp (2013), there are varieties of themes that emerge from these definitions. These include the type of services offered by business incubators, ranging from the accommodation described by Fry (1987) and the individual start-up assistance described by Hansen, Chesbrough, Nohria and Sull (2000), to the broader development of a community, industry and economy described by Kemp and Weber (2016). There is also a shift in the types of businesses that are to be incubated, the organisational aspects of the business incubator and the outcomes that the business incubator is trying to achieve (Kemp & Weber, 2016).

Although aspects of the definition of business incubation have changed over time, some elements remain consistent. Masutha (2013), summarises those aspects that have not changed since the beginning of business incubation in the 1950s, highlighting three features of business incubation which are: (i) the age of the business, (ii) the delivery of assistance and (iii) the goal of graduation.

The mission of the incubator is to provide assistance to early-stage companies, it must be able to provide business assistance to tenants and it must bring tenants to economic self-sufficiency in order to graduate them from the facility. Beyond these elements, however, the concept of what a business incubator is and does has evolved from when they were first established over 50 years ago (Kemp, 2013). Therefore, as discussed in the theory of business incubation, the focus of business incubators is on assisting to nurture early-stage technology-based ventures to a level where they can seize business opportunities and compete in the market without further support (Ayaste, *et al.,* 2017).

The National Business Incubation Association's (NBIA) most recent description of incubation is more inclusive than earlier iterations and comprises the growing importance of services, entrepreneurship, strategy and tailored or targeted support: "Business incubation is a business support process that accelerates the successful development of start-up and fledgling companies by providing entrepreneurs with an array of targeted resources and services" (Mian, 2014:19).

These services are usually created or orchestrated by incubator management and offered both in the business incubator and through its network of contacts. A business incubator's key goal is to yield successful businesses that will leave the programme financially feasible. These incubator graduates have the potential to create jobs, uplift neighbourhoods, commercialise new discoveries and strengthen local and national economies (Kemp, 2013). Therefore, the researcher views business incubation as a platform where nascent entrepreneurs can receive structured businesses development and growth strategies. The development strategies are applied through coaching and mentoring provided by an industry-specific specialist. Physical working facilities can be provided; however, the aim should be to hand-hold nascent entrepreneurs to be visible and viable in the market.

2.4.2 Historical development of business incubators

The first business incubators (BIs) were established in the USA in the 1950s. The concept became widespread in the 1980s and spread to the rest of the world in its many varied forms like business centres, innovation centres. These first generations BIs offered affordable office space and shared resources. Infrastructure is the basic function common to all kinds of BIs and the core of their value proposition; it consists of office space rented at favourable conditions to incubatees.

Furthermore, BIs often have small production facilities or mixed units available to their tenants. Provision of space is critical to business incubation and has been elected by tenants as the most beneficial feature of incubators. Shared resources such as reception, clerical services, meeting rooms, conference rooms or car parking complement the office space and are normally available in BIs. More specialised resources, such as laboratories and research equipment, can also be placed under infrastructure (Kemp, 2013; Grimaldia & Grandia, 2005; Lose, 2019; Mian, 2021). Figure 2.4 indicates the value added and the ecosystem integration within incubators and how they have evolved from pre – 1980s to post 2010.

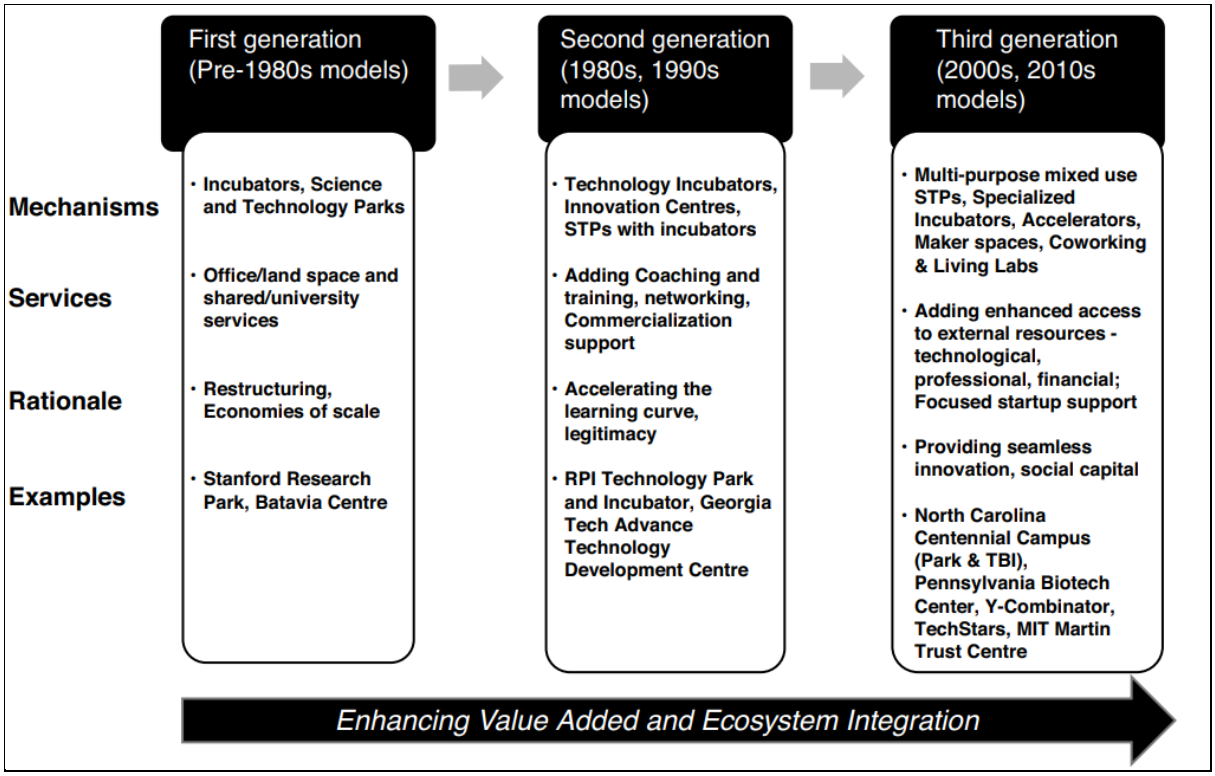

Figure 2.4: Generations of Business Incubators (Source: Mian, 2021)

Based on Figure 2.4, tenants benefit from existing economies of scale within the BIs when renting office space together with shared resources. Providing shared space along with communal resources has several benefits to incubatees:

a) First, the existence of economies causes a reduction of the tenants' overhead costs. Each tenant benefits from the use of office space together with a bundle of shared resources including energy, water, telecommunications and cleaning, among others.
b) Second, BIs provide new businesses with services they probably would not have access to during such early stages of development such as meeting rooms, reception services or private parking space.

c) Third, BIs also eliminate the burden of planning, setting up and paying individual providers. Tenant companies do not have to put effort and time into managing complementary services, which allows them time to concentrate on their core activities (Ratinho, 2011; Lose, 2019; Mian, 2021).

According to the philosophy of business incubation, business incubators aim to elevate early-stage technology-based companies to a point where they can capitalise on business possibilities and compete independently in the market (Rambe, 2022). To understand the business incubation programme in South Africa and its effect on the sustainability of businesses post-graduation, it is essential to analyse the South African business incubation strategy, which will be addressed in the subsequent section.

2.4.3 The nascent business incubation drive in South Africa

The South African landscape is characterised by various economic, political and social tribulations, including the staggering unemployment rate, whilst the inequality in income dispersion is increasing and there are low levels of entrepreneurial activity (Bowmaker-Falconer *et al.,* 2023). In addition, the economy is characterised, with frustration by the public, by its lacking service delivery as well as its poor educational standards when compared with other countries (Langa, 2022; Olawale & Garwe, 2010 Bowmaker-Falconer *et.al.,* 2023).

Over the past decade, the economy has consistently underperformed, with the real gross domestic product (GDP) per capita declining since 2011 (Monitor, 2019). Intentions to become an entrepreneur in South Africa have declined (2021: 20% - 2022: 10,1%) and are lower than the GEM global average (26,19%) and the African countries average (40,14%). The nascent entrepreneurial rate in 2022 (5,83%) and new business ownership rate (2,64%) in South Africa are lower than the African average (7,61%). According to Bowmaker-Falconer *et.al.* (2023:99), early-stage entrepreneurship and established businesses in South Africa (8,47% and 1,84%) have much lower rates than the GEM global averages (12,9% and 7%), as well as the African countries' average (12,11% and 7,31%).

In South Africa, women still show lower TEA rates (7,9%) and established business rates (1,7%). In South Africa, the business discontinuance recovered to 4,9% in 2019 and reached an all-time high in 2021 (13,9%). The business discontinuation rate recovered in 2022 (4,9%). Women in South Africa have higher business discontinuation rates (5,2%) than men (4,6%) in 2022. In 2022,

the rate of business discontinuance in South Africa is lower than the global average (5.8%) (Bowmaker-Falconer *et.al.,* 2023:99).

Entrepreneurship and innovation are perceived as key instruments needed to uplift stifled economies, especially within emerging economies (Tembe, 2018). “Small, medium and micro enterprises represent an important vehicle to address the challenges of job creation, economic growth and equity in our country” (Tembe, 2018).

When looking at South Africa during 1995 the government, through the development corporation agency, launched hives of industry (Rogerson, 2004). This concept was seen as a fundamental tool required to bridge gaps, which existed between large and small businesses (Tembe, 2018). It is crucial to differentiate between large entrepreneurial ventures and ordinary nascent businesses.

According to Smith and Chimucheka, (2014), as well as Nieman and Pretorius (2004), ordinary small businesses are not dominant in their specific industries, and they seldom participate in any innovative or new practices. Whereas large entrepreneurial ventures can be labelled as those businesses that have profitability and growth set as main objectives. Key distinctive characteristics shared by entrepreneurial ventures and small businesses include innovation, potential for growth and strategic objectives (Smith, 2017), which will be discussed separately in Chapter 3.

The concept of Development Corporation Agency launched hives of industry later gave rise to the business incubation concept (Rogerson, 2004). Through this process, large businesses were encouraged to engage with small businesses by providing mentorship and access to market opportunities (Rogerson, 2004).

Hives transformed into business incubators in the early 2000s due to a government initiative known as the Godisa Agency (Buys & Mbewana, 2007; Tembe, 2018). The agency was intended to achieve goals planned out to support small businesses (Buys & Mbewana, 2007). The Godisa intervention was crucial because it was an opportunity to test and pilot a model that could be applicable to growing start-ups in South Africa (Buys & Mbewana, 2007).

Currently, the South African landscape is characterised by two incubation drives: technology centres and business incubators. Both have been established with the main purpose of

stimulating economic development, particularly in the high technology SMEs (Lose & Tengeh, 2016). The increasing number of business incubators show that the right kind of business environment is increasingly acknowledged as an important factor contributing to the success of competitive SMEs and a diversified local economy (Ntlamelle, 2015). Indeed, technology incubators are emerging as a new form of venture creation and a way to promote SMEs (Tilana, 2015).

The Department of Science and Technology launched the technology stations project to improve and accelerate collaboration between universities and start-up businesses, known as technology stations. The activities of the technology stations encompass research, business expansion services, new technology development, expertise and knowledge transfer, quality advisory services, simulated production units, testing services and the commercialisation of goods and services (Ndabeni, 2008; Lose & Tengeh, 2016).

Technology incubators emphasise physical infrastructure and incubation processes. Their primary aims include economic growth, sustainable employment, technological innovation and technology transfer; aimed at enhancing the South African small, medium and micro enterprises' (SMMEs) global competitiveness (Lose & Tengeh, 2016).

A significant component of the business incubation drive in South Africa is the Small Enterprise Development Agency (SEDA) Technology Programme, which encompasses more than 29 incubators aiding entrepreneurs across diverse industries (Simango, 2022). Although some incubators are led by the private sector, the majority receive funding from the national government, with minor contributions from provincial and municipal governments (Ndabeni, 2008; Lose & Tengeh, 2016). Consequently, these institutions offer financial support, sophisticated technology resources and promote private-sector collaborations with the government to sustain the backing of business incubators (Cullen, Calitz and Channdler, 2014; Andersson & Müller, 2023).

The SEDA Technology Programme aims to provide technology support interventions, utilising many technology incubators that cater to the technological requirements of SMEs (Masutha & Rogerson, 2014). The overall purpose of the programme is to improve enterprise performance and profitability and to reduce enterprise mortality (Burns, 2022). In South Africa, the most advanced business incubator is the Innovation Hub, which focuses on high-technology entrepreneurs and start-up companies at the leading edge of the new economy (Masutha &

Rogerson, 2014). The innovation Hub of the Gauteng Province was established in 2001 and is a fully owned subsidiary of the Gauteng Growth and Development Agency (Gauteng Growth and Development Agency, 2023:1). Supporting the technology incubation drive are government departments (the Department of Trade, Industry and Competition and the Department of Science and Technology), institutions of higher learning and donor support from the European Union. Most business incubators in South Africa are linked to scholarly institutions of higher learning or research parks (Masutha & Rogerson, 2014).

The universities of technology have substantial potential for aiding innovation since they have practice-focused staff, specialised technical and scientific tools and custom-built training courses (Ntlamelle, 2015). The National Research Foundation and the Council for Scientific and Industrial Research are engaged in the execution of technological incubators. Most of technology stations are situated at universities of technology. The Technology Innovation Agency (2023:30), as indicated in Table 2.3, shows that there are eighteen technology stations in South African universities. The list of technology stations is demonstrated as follows:

Table 2.3 Technology Stations in South Africa (Source: Technology Innovation Agency, 2023:11)

1	Technology Station in Electronics (TSE)	Tshwane University of Technology
2	Metal Casting Technology Station (MCTS)	University of Johannesburg
3	Technology Station for Materials and Processing Technology (TSPMT) -	Vaal University of Technology
4	Product Development Technology Station (PDTS)	Central University of Technology
5	eNTSA (advanced manufacturing)	Nelson Mandela Metropolitan University
6	InnoVenton: Institute for Chemical Technology	Nelson Mandela Metropolitan University
7	Technology Station in Clothing and Textile (TSCT)	Cape Peninsula University of Technology
8	Agri-food Technology Station (ATS)	Cape Peninsula University of Technology
9	Limpopo-Agro-Food Technology Station (LATS)	University of Limpopo
10	Technology Station in Chemicals (TSC)	Tshwane University of Technology
11	Technology Station in Chemicals (TSC)	Mangosuthu University of Technology
12	Reinforced and Moulded Plastics Technology Station (RMPTS)	Durban University of Technology
13	Institute for Advanced Tooling	Tshwane University of Technology (IAT-TUT)
14	Institute for Advanced Tooling	Walter Sisulu University (IAT-WSU)
15	Institute for Advanced Tooling	Stellenbosch University (IAT-SU)
16	Adaptronics Advanced Manufacturing Technology Laboratory (AMTL)	Cape Peninsula University of Technology
17	Process Energy and Environmental Technology Station (PEET)	University of Johannesburg
18	Technology Station in Rural Sustainable Development (TSRSD)	Upington in the Northern Cape, affiliated to VUT

The proximity to tertiary institutions allows tenants access to technical amenities, students, faculty members, research laboratories and libraries. The technology incubation drive allows for the

optimum utilisation of scholarly capital and infrastructure favourable to promoting scientific research (Mugambi, 2020).

According to Masutha and Rogerson (2014), as well as Simango (2022), the Department of Trade, Industry and Competition states that these incubators are tasked with addressing the following seven basic and generally acknowledged needs of the accommodated small businesses:

a) Provide management support to the businesses;
b) facilitate the acquisition and transfer of technology;
c) promote adherence to quality standards;
d) improve the productivity of the businesses;
e) strengthen the competitiveness of incubator businesses;
f) promote entrepreneurial activity (with particular focus on empowerment groups) and, through all of this;
g) reduce the relatively high failure rate of start-up and emerging businesses.

However, in understanding business incubators as a tool for accelerating entrepreneurship (Hassen, 2024), the services offered by business incubators are discussed in the following section.

2.4.3.1 Services offered by business incubators

The business incubation modality has developed in response to the need for effective business support strategies. Workstations, funding, shared equipment and linkages of contacts to customers, suppliers, governments and delivery agents provide the basis for a proactive, decentralised programme. Business incubators provide, therefore, start-up and fledgling companies with hands-on business and management assistance, affordable space and shared support services (Waruguru, 2018). They are an alternative to the office at home or long-term lease. Figure 2.5 below provides a summary of the services provided by a business incubator.

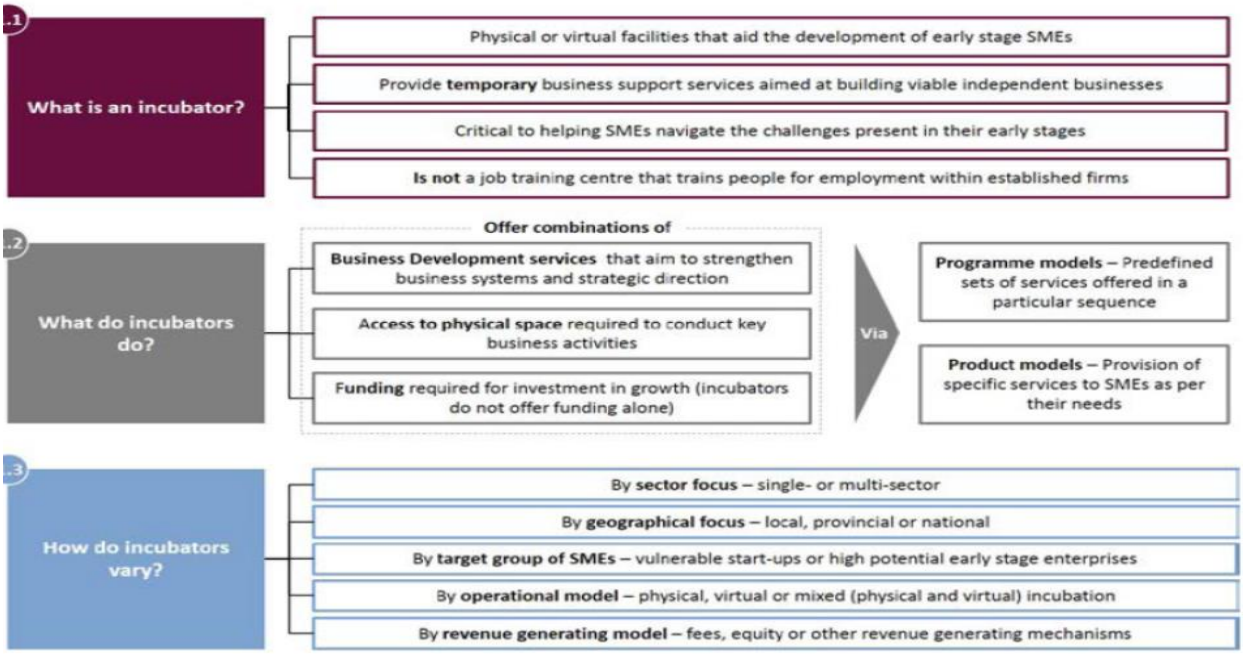

Figure 2.5 Description of Business Incubators (Source: United Nations Development Programme (UNDP), 2014; Adrian, Song, Jang, Stueber, Jin, Vohra, Ma, Ye & Lawrence, 2021)

Figure 2.5 indicates that services of a business incubator usually include a network of relationships with other business owners who provide support for each other and who may become customers or suppliers of each other's businesses. Funding assistance, such as help in obtaining a bank loan or gaining access to state funds, can also form part of the process. Business and technical support through a combination of in-house expertise and a network of community support also form part of the business incubation process (Gurgel & Rodrigues, 2017; Tang, Walsh, Li & Baskaran, 2021). Shared business services, such as telephone answering, bookkeeping, word processing and other secretarial services, reception services and access to copy machines, computers and business libraries, flexible space and flexible leases, often at below market rates, are standard offerings of a business incubation process (Stokan, Thompson & Mahu, 2015).

In another view, Choto (2015) references that there is no one model fits all for business incubation; models vary depending on objectives, the business environment, their owners and the funders. Scaramuzzi (2017) cited five incubator models, which are: (i) first generation incubators, (ii) university incubators, (iii) virtual incubators, (iv) international enterprise centres and (v) dot.com incubators. These indicate the change in the evolving world of technology.

Furthermore, Choto (2015) identifies four incubator models, these are bricks and mortar, eggubators, virtual or without walls as the hub, also known as venture incubators. In Table 2.3 Barrows and Kist (2013), as well as Hewitt & Van Rensburg (2020), describes the five types of business incubators, separated by their primary and secondary goals, as he attempts to break through the various variations and combinations of business incubation expressed around the world with his description.

Table 2.4: Primary and Subsidiary Goals of Different Types of Incubators (Source: Barrows & Kist (2013, cited in Kemp, 2013); Hewitt & Van Rensburg, 2020)

	For-profit property development incubators	Non-profit development corporation incubators	University incubators	For profit investment incubators	Corporate venture incubators
Main Goals	Property appreciation Maximise occupancy Sell services to tenants	Job creation Encourage entrepreneurship Diversify economic base	Faculty-industry collaboration Commercialise university research	Make substantial capital gain quickly	Get into related markets quickly and inexpensively Have a window on related technologies
Subsidiary Goals	Create investment opportunities for more property	Generate sustainable income to break-even point Use vacant premises	Exploit investment opportunities Create goodwill in local community	Develop synergies in investment portfolio	Provide entrepreneurial opportunities for staff Make money

Ultimately, regardless of how an incubator is categorised or described, business incubation involves adopting a dynamic process required for supporting emerging small businesses during periods of uncertainty (Buys & Mbewana, 2007; Ndabeni, 2008; Tembe, 2018). The primary purpose of business incubators is to alleviate the inherent risks of failure related to launching a novel enterprise. Business incubators offer services designed to efficiently address the issues faced by SMEs (Tembe, 2018).

These challenges may include a lack of access to pertinent information relating to how a SME can access start-up capital, as well as how to effectively run a formal business (Bronkhorst, 2020;

Buys & Mbewana, 2007; Ndabeni, 2008). The developmental steps of new businesses can be categorised in five phases, namely: (1) potential idea for a new product or service, (2) decision to proceed, (3) resource gathering (financial, people, information), (4) launching of new businesses/start-ups and (5) the businesses' development. All these steps complete a business incubations process (Lalkaka, 2006; Gurgel & Rodrigues, 2017).

Figure 2.6 illustrates that once a concept is conceived, embryonic entrepreneurs opt to advance, and incubators can persist in aiding them in resource acquisition. As new businesses emerge, incubators can provide distinct support beyond common business or research facilities, including training, networking, and consultation across several domains of knowledge (Lalkaka, 2006; Vanderstraeten & Matthyssen, 2012).

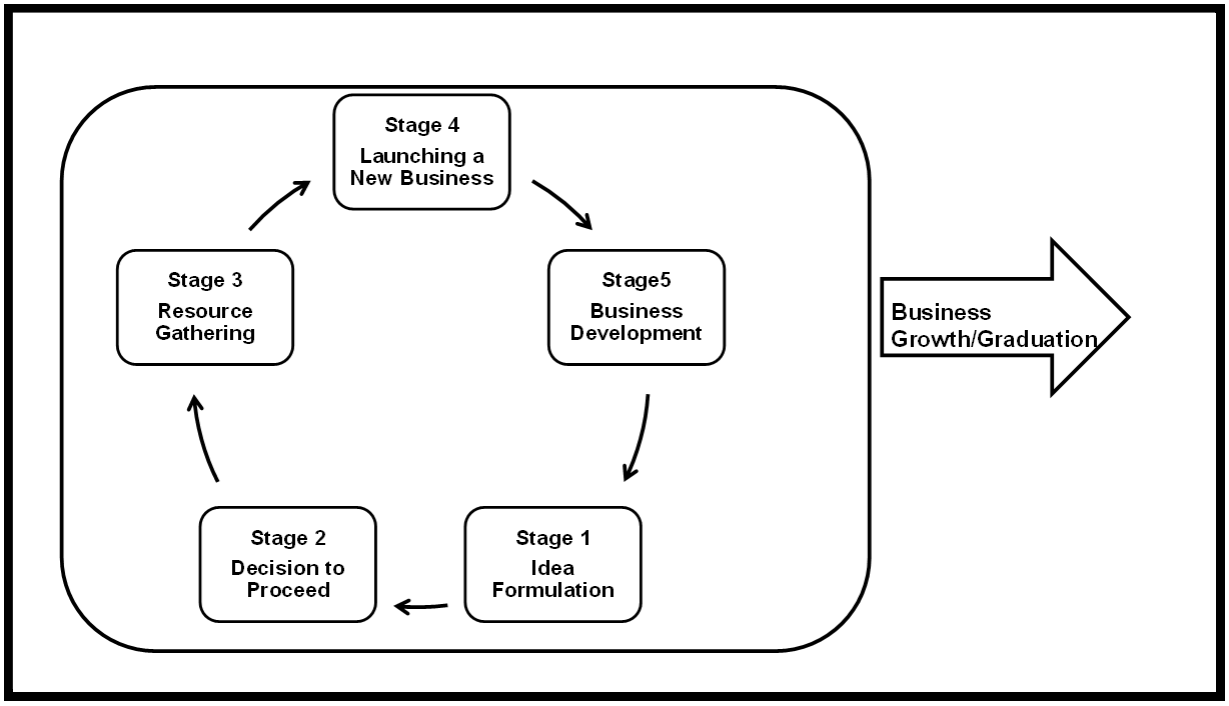

Figure 2.6: The Incubation Process (Source: Vanderstraeten & Matthyssen, 2014 cited in Serwadi & Amadi-Echendu, 2024)

2.4.4 Graduation from businesses incubation

Incubatees in business incubation programmes may graduate from these programmes for many reasons. The most common reasons for graduation include outgrowing available incubator space, spending the maximum allowable time in the programme and achieving mutually agreed-upon milestones (Al-Mubaraki & Busler, 2014; Mercer, 2021).

However, in countries such as Indonesia post-incubation performance measurement is done at academic institutions as start-up, spin-off and as an output of academic entrepreneurship is a complex process (Tritoasmoro, Ciptomulyono, Dhewanto and Taufik, 2024). The Indonesian system utilises the lean start-up method, initially popularised by start-up development practitioners, provides a pattern of start-up business development with validated learning quickly by relying on data feedback and support for agile development (Games, Kartika, Sari and Assariy, 2021; Tritoasmoro et al., 2024). In a developing ecosystem such as Indonesia which is similar to South Africa, the effectiveness of the university's incubation process and its support for start-up viability after incubation need to be continuously improved (Tritoasmoro et al., 2024) Therefore, the search for an incubation management framework is a topic that is always relevant to be investigated. Exploration and search for the most suitable framework in an ecosystem is a must to increase incubation success.

The efficacy of an incubator can be measured by the number of businesses that have successfully completed its programme within a designated timeframe. Graduation can indicate that a business has made use of the resources available at the incubator and has achieved a level of success and self-sufficiency that allows it to prosper on its own (Lalkaka, 2006, cited in Iacano & Nagano, 2017). According to Rambe. (2022), graduated incubatees qualify as established rather than nascent ventures and have therefore outgrown the need of incubation.

Incubators are considered successful when they assist their incubatees in accomplishing this objective. It should be noted that statistics regarding graduation from incubators are meaningful only if clear goals have been determined and criteria for graduation standardised (Eldering & Hulsink, 2021; Pairsuwan, 2023).

An incubator that graduates businesses that, for example, have found other sources of funding, cannot contribute to data about incubator success because such a criterion for graduation does not reflect the successful operation of the incubator (Peters *et al.,* 2009; Iacono & Nagano, 2017). In addition to graduating a significant number of businesses in proportion to its total number of clients, a successful business incubator should be able to demonstrate the continued success of graduated businesses over a specified period (Peters *et al.,* 2009; Iacono & Nagano, 2017; Eldering & Hulsink, 2021; Pairsuwan, 2023).

The performance of business incubation is measured by the growth and financial outcomes of the incubatee's business development stage at the point of incubator exit. There are five mutually exclusive outcomes upon the conclusion of the incubation process:

a) The business is surviving and developing profitably.
b) The business is surviving and developing and is on a path toward profitability.
c) The business is surviving but is not developing and is not profitable or is only marginally profitable.
d) The business's operations were terminated while still in the incubator, but losses were minimised.
e) The business's operations were terminated while still in the incubator and the losses were large (Lewis, Harper-Anderson & Molnar, 2011; Lose, Nxopo, Maziriri & Madinga, 2016).

Historically, the literature has suggested that the first three outcomes are indicative of post-incubation success and the last two outcomes are indicative of failure (Lewis, Harper-Anderson & Molnar, 2011; Lose, Nxopo & Mazirir, 2016). Table 2.5 gives a descriptive analysis of the characteristics of an incubated entrepreneur and a nascent entrepreneur (non-incubated business). A common characteristic between an incubatee and a nascent entrepreneur is that they are both start-ups and have the desire and the determination to grow beyond their existing state. The success of businesses takes considerable determination, consistency, time, well-defined ideas and determination. The difference between incubatees and nascent entrepreneurs that are not incubated are shown in Table 2.5.

Table 2.5: Difference between Incubatees and Nascent Entrepreneurs (Non-Incubated Entrepreneurs) (Source: own compilation)

Incubatees	**Nascent Entrepreneurs**
An incubatee refers to an emerging entrepreneur, situated within the confines of a business incubator that has entered into an agreement with the business incubator to permit himself to develop and produce pioneering products.	Individuals who are actively engaged in creating new self-owned or co-owned ventures. This venture has not paid salaries, wages or any other payments to the owners' businesses for more than three months (França, Frankenbach, Vereb, Vilares & Moreira, 2021).

They have access to a suitable venue and are equipped with the necessary facilities and experience to achieve their goals and nurture their business concepts, thereby converting them into viable realities (Hewitt & Van Rensburg, 2020).	They are constantly faced with challenges of shortage of raw materials, non-availability of power, inadequate working capital, limited market etc. In addition to the problems enumerated above, the micro enterprises face a number of other problems like inefficient management, non-availability of cheap power, the burden of local taxes etc. (Cheeroli & Kumar, 2018; Dzingirai, 2021).

A start-up business is a business-driven by innovation that sets out to do things that are different from the norm and normally with the use of technology (Kibuchi, 2016). A start-up is an innovative business that seeks to do different things with technology and scarce resources in the market (Audretsch, Colombelli, Grilli, Minola & Rasmussen, 2020).

There are several challenges affecting the world of business today; some of these challenges include unfair competition in most industries, the challenges associated with the market becoming a global village as well as internal challenges within a firm. Many of the challenges experienced are not predictable (Kibuchi, 2016). The business incubation approach seeks to mitigate the obstacles encountered by start-ups to a large extent and facilitate market access for incubatees, however, most nascent entrepreneurs have to apply the principle of the entrepreneurial value creation theory without any form of assistance, thus making them more vulnerable to market failure (Kibuchi, 2016; Alon, Jaffe, Prange & Vianelli, 2020; Ko & McKelvie, 2018; Falk, 2024; Mungila, Hillemane, Satyanarayana & Chandrashekar, 2019).

2.5 Conclusion

In conclusion, the research conducted by Hacket and Dilts (2004) is unequivocal. Through the theory of business incubation and successive work it is clear that there is a gap in the extent to which incubation literature has addressed the influence of resources provided during the business incubation processes to enable entrepreneurs to develop and grow their businesses in the market post-incubation.

According to Dlamini (2020) as well as Log and Parsatemijani (2019), the post-graduate records of graduated incubatees or businesses should be considered while evaluating the performance of incubators. An empirical investigation should go beyond the incubation period, as there are few studies on the post-business incubation graduation process (Theodoraki, Messeghem & Rice, 2018). In concluding this chapter, it can be argued that there is a necessity to enhance the conception of the incubation process, both empirically and conceptually, while also investigating how various aspects of the business incubation process contribute value to the entrepreneurial process. Considering this, the research question on “what are the main elements of business incubators that contribute to the survival of businesses after exiting or graduating from an incubation programme?” can be posed.

The discipline of entrepreneurship research can enhance its conceptual comprehension of the entrepreneurs' cognition, behaviour, knowledge and growth, as well as include aspects of entrepreneurial processes into business incubation studies by using the existing and emerging theoretical knowledge as a base that can be obtained from the entrepreneurship literature. The researcher will discuss this further in the following chapter.

CHAPTER 3: ENTREPRENUERIAL PROCESSES IN BUSINESS INCUBATION

3.1 Introduction

The examination of literature regarding business incubation theories and its processes were discussed in Chapter 2. A need to explore the entrepreneurial processes and how nascent entrepreneurs develop in a business incubation setup was also mentioned. Entrepreneurship is universally seen as a significant contributor to economic development, but it must be noted that the support systems in place to ensure success might be lacking and despite the determined intentions of business incubators, only a few nascent entrepreneurs graduate from these programmes (Harper-Aderson & Lewis, 2018; Muthusamy, 2022; Lose & Tengeh, 2016). However, there is still a lack of support systems, tracking mechanisms and proper monitoring systems to deal with mentorship in an incubation setting (Lose & Kapondoro, 2020).

In this chapter more emphasis is placed on the objective of investigating the influence of business incubation processes on the development of entrepreneurial performance and growth of post-incubatees. The researcher seeks to attain a comprehensive understanding of the entrepreneurial value creation process, specifically, on how nascent entrepreneurs absorb and distribute information and resources to initiate and nurture their businesses during the business incubation process to enable more prosperous businesses after graduating from a business incubation programme.

Using the lenses of the entrepreneurial value chain theory, the researcher aims to expand upon this knowledge for exploration on how individual's entrepreneurial knowledge interacts with entrepreneurial opportunity identification (value potential), entrepreneurial competence (value driver) and ultimately the entrepreneurial reward (value appreciation) during the incubation process. The theory of business incubation aims to build a roadmap towards the creation of a resource munificence which was also applied in the study.

This chapter serves as an approach to the exploration of the relationship between incubation practices and entrepreneurship. These viewpoints are discussed in the perspective of business incubation. Utilising the theory of entrepreneurial value creation and the theory of business incubation as the empirical lenses, the purpose of business incubators in developing entrepreneurship will be assessed. By bringing the two theories together, the study will provide

insights into the role of business incubators in nurturing entrepreneurship. Renko, Shrader and Simon (2012), as well as Samalopanan and Balasubramaniam (2021) highlight that, at each phase of development, the nascent entrepreneur learns vital business notions that govern the creation and substance of the new business venture. Therefore, this chapter will commence with the diverse definitions of entrepreneurship, succeeded by numerous facets of the entrepreneurial value chain, which are opportunity identification in a business incubation context, entrepreneurial competence and reward.

3.2 Definition of Entrepreneurship

Entrepreneurship is crucial to economic development (Kritikos, 2024). Globally, entrepreneurship is considered as the economic driving force essential for economic expansion, poverty reduction and job creation (Chinaire, Chimucheka & Khayundi, 2021; Sagar, Anand, Perumalla, Varalaxmi & Raj, 2023). Entrepreneurship is a catalytic agent that infuses economic growth and the development of productive economic activities in both domestic and international markets (Nwagu & Enofe, 2021; Chinaire, Chimucheka & Khayundi, 2021).

There is no doubt that a relationship exists between entrepreneurship levels and the economic growth of any nation (Smith & Chimucheka, 2014). Van Aardt *et al.* (2008) defines entrepreneurship as the act of establishing, developing and enlarging an enterprise or business, in addition to assembling an entrepreneurial team and attaining other resources to capitalise on a market opportunity for long term growth. Hallak and Lee (2023), suggest that entrepreneurship is a way of thinking, reasoning and acting which is opportunity obsessed, holistic in approach and leadership balanced. Guerrero, Liñán and Cáceres-Carrasco (2021) identify entrepreneurship to be the process of conceptualising, planning, launching and sustaining a business opportunity into a potentially high growth venture in a complex and unstable environment.

The concept of entrepreneurship is intricate and contentious due to the lack of consensus on its definition. Beyond the opposing and contradicting viewpoints in defining entrepreneurship, is the vastly diverse means in which entrepreneurship is enacted. Entrepreneurship is based on the different existing representative definitions found in the literature (Smith & Chimucheka, 2014 Prince, Chapman & Cassey, 2021). According to Pretorius and Van Vuuren (2003) as well as Smith & Chimucheka (2014), there are three views that can be discerned from the definition focusses, namely: (a) definitions highlighting the characteristic traits or qualities supposedly possessed by entrepreneurs, including risk taking, leadership and motivation; (b) definitions

highlighting the process of entrepreneurship and its result, including the creation of a new enterprise and (c) definitions engaged in the actions undertaken by entrepreneurs, including establishing connections to new markets, overcoming market deficiencies and developing a profit oriented business, to fill currently unsatisfied needs and to take operational control of the business (Pretorius & Van Vuuren, 2003; Smith & Chimucheka , 2014).

These perspectives state that entrepreneurs also have characteristics that set them apart from ordinary people (Pirie, 2020). This, however, does not mean that they have the same characteristics. Greene (2020), as well as Smith & Pretorius (2022) and Smith and Chimucheka (2014), identified that such individuals have a desire to achieve; they are hard workers who nurture quality, are excellence oriented, money oriented, accept responsibility, reward oriented, optimistic, good organisers and are passionate about business. Other characteristics include focussing on control, creativity and innovation, determination and persistence, a need for independence, a need for achievement and risk taking to reap the rewards (Smith, 2020).

Therefore, the researcher views entrepreneurship as an opportunity identification process that leads to the gathering of resources and interaction with the market to realise rewards in the form of profit. An entrepreneur, in this context, would be an opportunity identifier, risk taker, a person who is innovative, gathers resources and turns them into profitable goods and services in the market; this individual is rewarded with profit.

Motivated by the Austrian theory[2], Shane and Venkataraman (2000), as well as Jones, Meckel and Taylor (2021), take a disequilibrium view of entrepreneurship. They question the definition of entrepreneurship; focused on the study of entrepreneurs alone they set a milestone by linking the concepts of entrepreneur and opportunity, as well as promoting the notion of the entrepreneurial process, which is rooted within opportunities (Jones *et al.,* 2021). Thus, according to Prince, Chapman and Cassey (2021), entrepreneurship is a process that includes: the sources of opportunities; the processes of discovery, evaluation and exploitation of opportunities and the set of individuals who realise, evaluate and exploit them. For the purpose of this research, this definition advances the understanding of entrepreneurship by providing a dynamic and holistic

[2] Austrian theory of the business cycle first proposed by Friedrich Hayek in the 1920s. His theory claimed that credit creation by monetary authorities would push investment beyond society`s long-term willingness to save, creating a mismatch between supply and demand that would inevitably cause recession (Opper, 2006; Hayek & Klausinger, 2020).

view of the entrepreneur, the opportunity and the process of identifying and developing the opportunity. Therefore, entrepreneurship might be regarded as a process that emphasises the interaction between the entrepreneur and the opportunity.

The entrepreneurial value creation theory offers the lenses to examine the interiors of the entrepreneurial process using a two-stage value creation and appropriation framework (Mishra & Zachary, 2015). The entrepreneurial process involves the entrepreneur identifying an external opportunity; matching the entrepreneurial resources at hand with the opportunity to effectuate an entrepreneurial competence; acquiring external resources, if necessary; creating sustained value and appropriating the entrepreneurial reward (Asgary & Maccari, 2019). The researcher posits that incubated entrepreneurs aspire to expand their businesses significantly and are associated with entrepreneurial endeavours through creativity, innovation and growth. In conducting research, differentiation of entrepreneurial businesses and conventional small businesses remains crucial.

According to Nyoni (2021), ordinary small businesses are not dominant in their fields, and they rarely engage in any innovative or new practices. On the other hand, entrepreneurial ventures can be described as those businesses that have profitability and growth set as principal objectives instead of becoming industry experts. The primary distinguishing features between entrepreneurial businesses and small businesses are innovation, growth potential and strategic intentions (Nyoni, 2021). Therefore, entrepreneurial support systems such as business incubators provide time-based coordination for enabling activities during the new venture creation process, which includes opportunity identification, entrepreneurial competence and reward (Nair & Blomquist, 2020). However, can entrepreneurial value creation process in a business incubation programme lead to the growth and sustainability of the nascent entrepreneur's business after exiting the business incubation programme? An evaluation of value potential in entrepreneurship is discussed in the following section.

3.3 Entrepreneurial Opportunity (Value Potential)

Entrepreneurship is intricate, encompassing the entrepreneur, the opportunity and their link (Prince, Chapman & Cassey, 2021). As entrepreneurship can be contextualised as the process of opportunity identification and exploitation, it is important to take a closer look at the term and clarify what opportunity means in this context (Jones, Meckel & Taylor, 2021). Shane (2000), as well as Jones *et al. (*2021), suggests that entrepreneurial opportunities are opportunities to bring

into existence new goods, services, raw materials and organising methods that allow outputs to be sold at more than their cost of production. Jones *et al.* (2021), drawing on the work of Schumpeter (1934), Kirzner (1973) and Casson (1982), define an opportunity as the opportunity to satisfy a market demand (or interest or desire) by an innovative incorporation of resources to provide viable value. Entrepreneurs are distinguished by their ability to perceive and exploit opportunities overlooked by others (Kirzner, 1973; Schumpeter, 1976.

Research by Zahra, Liu and Si (2023), as well as Chen, Chan, Hung and Lin (2020), reasoned that entrepreneurship as a field of study pursued to understand when and how opportunities for the creation of future goods and services arise in the economy; and how these opportunities can be exploited. According to Kulkov, Hellström and Wikström (2021), an entrepreneurial ecosystem serves a crucial function; as an accelerator that develops nascent businesses. Therefore, the business incubation process aims to assist the entrepreneur in the opportunity identification process (Nair & Blomquist, 2020). Various authors strive to consider business incubation from a value or opportunity creation perspective since the basic function of incubation is to help create value for new ventures and their stakeholders, three different levels of analysis to value creation is described (Gartner, 1985 cited, in Nair & Blomquist, 2020).

When the individual is the source of value creation, opportunity arises from creativity, ability, motivation, intelligence and interaction with the environment. When the business is the source of value creation, issues regarding innovation, knowledge creation, invention and management gain prominence. At the societal level macroeconomic conditions in the external environment, government policies as well as laws and regulations influence value creation (Nair & Blomquist, 2020).

However, new venture creation is a gestalt of variables from four dimensions: (a) the individual(s) involved in starting the venture; (b) the business or the kind of venture being started; (c) the environment in which the new venture is immersed and (d) the process of new venture creation. The value should, therefore, arise from the interaction of all of these multi-dimensional aspects of new venture creation. Value creation has both content and process components. According to Nair and Blomquist (2020), the content side refers to questions regarding what is value/valuable, who values what and where value resides; while the process side refers to how value is generated and the role, if any, of management in this process.

Understanding business incubation from an opportunity identification and value creation perspective is a recent phenomenon. The rapid rise of high technology and knowledge-based businesses in the last two decades has led to incubators changing their models to not just include physical investment but also provide more intangible and high-value services such as virtual training (Maus & Sammut, 2021; Nair & Blomquist, 2020; Vandeweghe, Sharapov & Clarysse, 2019; Nair & Blomquist, 2019).

In particular, they are redirecting their focus towards facilitating entrepreneurial value creation and capture, as they now comprehend that technological innovation alone does not ensure venture success (Nair & Blomquist, 2021). Subsequently, the need to design a scalable business model has become the primary objective of start-ups (Fox & Vahala, 2022). This shift is not adequately represented from a value-based venture creation perspective in the literature as the first- and second-generation incubators concentrated only on the economies of scale and learning (Nair & Blomquist, 2020). The boundary-spanning function that facilitates access to different types of resources and service providers, through established business networks, is regarded as a characteristic of the third and current generation of incubators (Schepis, 2021).

The three factors namely: (a) entrepreneurial opportunity identification, (b) value creation and (c) value capture cannot occur in a vacuum but rather do so within a value network, which can include customers, suppliers, partners, distribution channels and coalitions that extend a new venture's resources (Nair & Blomquist, 2020). This perspective perceives entrepreneurs as closely connected to a wider network of individuals through their social interactions.

In this regard, incubators can also be considered as social organisations that apply collaboration of the incubatee with customers, funding agencies and other stakeholders to address business challenges and opportunities, thus, value is considered as incubator facilitated interactions between incubatees and external stakeholders while aiding in the acquisition of vital resources for these interactions (Abi Saad, 2022). It is therefore important to note that entrepreneurial skills are not inherited and unchangeable as traditionally thought. Research has proven that people can still change certain characteristics of entrepreneurs, which were previously regarded as genetic (Sendra-Pons, Calatayud & Garzón, 2022).

When assessing themselves, entrepreneurs need to do a self-introspection and self-evaluation to be able to establish their personal strengths and weaknesses. Individual strengths can then be positively applied towards the success of the business, while the weaknesses could be addressed

through entrepreneurship education and training (Smith & Chimucheka, 2014). Although it has been noted that skills differ, an entrepreneur must be committed to developing both entrepreneurship and management skills (Meyer, Schachtebeck & Nieuwenhuizen, 2022). This is mainly because both entrepreneurial and managerial skills are crucial for entrepreneurial success. It can thus be said that entrepreneurial skills are related to the personal and interpersonal competencies of people and are generally expressed in their behaviour. Management skills on the other hand are an indication of how well an entrepreneur can perform important tasks and activities related to the functions of a business.

It is important to take note that relying solely on entrepreneurial skills, while disregarding business expertise, will not guarantee ideal outcomes. It is a combination of both entrepreneurial skills and business training in entrepreneurship education that will be most effective in developing and preparing successful entrepreneurs (Lyons, Lyons & Samson, 2021). All entrepreneurial opportunities have three categories of ingredients—evaluations, actions and understanding. According to Nair and Blomquist (2020), business incubation has been viewed as a standardised time-bound process; especially since many incubators limit the length of time.

Once opportunity is solidified, the element of entrepreneurial competence is assessed (Nair & Blomquist, 2020; Lewin, 2015). A study conducted by Meckel (2014), on the functions of business incubators in accelerating entrepreneurships, views the role of the business incubator as the opportunity identification process as portrayed in the Figure 3.1.

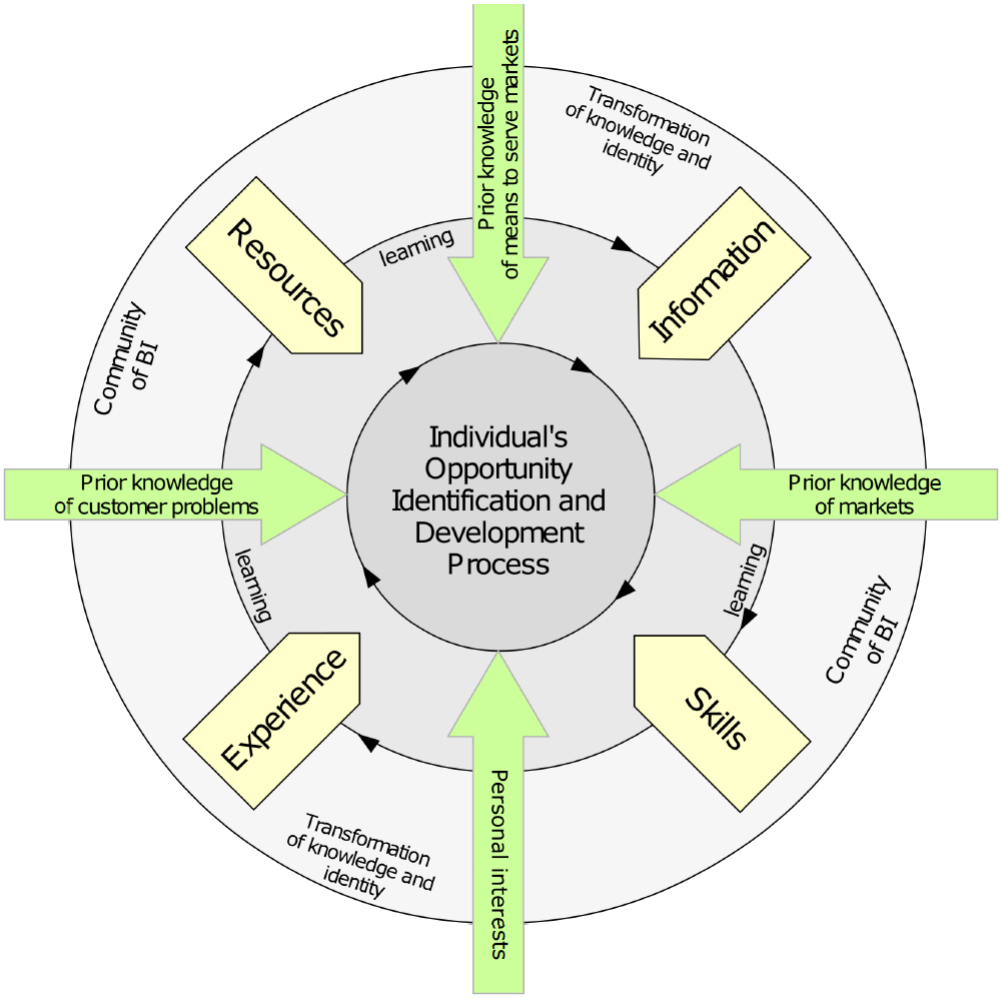

Figure 3.1 Opportunity Identification Process (Source: Meckel, 2014)

At the centre of Figure 3.1, is the individual's or nascent entrepreneur's opportunity identification and development process. The entrepreneur's opportunity identification and development process are shaped by a complex interaction of knowledge, skills and learning that begins prior to entering the business incubator (BI) and continues throughout the incubation process (Fuschi & Galiyeva, 2022).

According to Meckel (2014), the green arrows represent prior knowledge gained before entering a business incubator. The yellow arrows represent the information, skills, experience and resources the incubatees gain from a business incubator. The outer circle signifies the business incubation community where new talents are developed and knowledge is obtained (Meckel, 2014).

Entrenched within this process of opportunity identification are the learning activities whereby, information and skills are transformed into opportunity identification and development (Meckel, 2014). In the primary circle, learning emerges on an individual basis and through interaction between the incubatee and the business incubator (Fuschi & Galiyeva, 2022; Meckel, 2014).

The relations occur among various forms of earlier acquaintances, information, abilities, experience and resources acquired through a business incubator; and also, through becoming a member of the business incubator communal (Meckel, 2014; Jones *et al.,* 2021). Moving towards the centre of the model, the learning process allows the transformation process to be completed. Newly acquired information, skills, experience and resources from the business incubator are combined with existing knowledge and new information to be transformed into innovative knowledge, in this context, opportunity (Meckel, 2014; Jones *et al.,* 2021).

Following up on Figure 3.1, the researcher recognises that the achievement of an entrepreneurial venture is restricted by the prevailing market circumstances of opportunity, however, as alluded to by in Nair and Blomquist (2020), the capacity to meet such expectations relies significantly on individual characteristics including personality, intelligence, emotional and cognitive skills as well as learning and problem-solving abilities. The researcher acknowledges other environmental factors, such as market changes (the impact of the Covid-19 pandemic), customer confidence (rising interest rates) and resource availability. These are mostly expressed and supported in the entrepreneurial competence or value driver phase of the entrepreneurial value creation theory. Once an incubator and the incubatee have solidified the process of opportunity identification, the incubatee will then move to a process of competence building (Mishra & Zachary 2015, cited in Sellappan & Shanmugam, 2023).

3.4 Entrepreneurial Competence as a Value Driver

According to Lose and Kapondoro (2020), the present business climate has experienced substantial disorders, which have made it necessary for business incubators to acquire and exhibit new competencies. These new competencies are essential to ensure the success of incubatees and to ensure the survival of the incubator. The crucial function of reconfiguring business incubation to endure emerging disturbances should be considered in the context of the general situation in the South African economy (Lose, 2016).

According to Girasa (2020), as well as Lose and Kapondoro (2020), the Global Economic Monitor (Bowmaker-Falconer & Meyer, 2022) classifies national economies into factor-driven, efficiency-driven and innovation-driven economies. South Africa is an efficiency-driven economy and is expected to move to an innovation-driven economy in time. A key attribute of the innovation-driven economy is business sophistication and innovation. It is important to realise that an appropriate incubation model for South Africa should facilitate the transition from an efficiency-oriented economy to one that is innovation-oriented (Lose & Kapondoro, 2020). Furthermore, the world economic order is drifting towards the Fourth Industrial Revolution (4IR), as reported by the World Economic Forum (Girasa, 2020; Lose & Kapondoro, 2020; World Economic Forum, 2019:23). It is, therefore, important to understand how individuals develop their entrepreneurial competence during an incubation phase.

Entrepreneurial competence is crucial for progressing research in business incubation (Lose, 2016; Meckel, 2014), particularly in understanding the research objective of exploring the elements of business incubation that influence the success of businesses after exiting a business incubation programme (Lose & Kapondoro, 2020). In the perspective of this dissertation, business incubators can be theorised as knowledge facilities. Ollerenshaw, Murphy, McLaren and Thompson (2024) support Fry's (1993, cited in Lanham-New 2020) view that incubators do not only provide shared administrative services and assistance, but also the opportunity to create internal networks. Similarly, Seidel (2001) considers that a business incubator represents a communal network and exhibits characteristics of a community of practice for the development of the incubatees.

Entrepreneurs necessitate several abilities to ensure the success of their businesses, irrespective of their size. The skills that entrepreneurs require in developing and sustaining the business are technical skills, business management skills, entrepreneurship skills and personal entrepreneurial maturity skills (Salun, Zaslavska, Vaníčková & Šindelková, 2021). The researcher trusts that business development skills may also include access to markets and leadership competencies such as organising and allocation of resources.

Therefore, these notable skills have a common influence in facilitating entrepreneurial skills and activities. The role of a business incubator in fostering SMEs is essential for corporate growth and sustainability. The importance of entrepreneurial competence development as a skill for entrepreneurial action is well established (Lose, 2021). Research suggests that competence reflects the ability to effectively interact with the environment, this outcome pre-supposes the

capability to generate desired skills and evade undesired events and thus emphasises the importance of human agency (Zheng, Yang, Zhang & Yang, 2021). Entrepreneurs' action encompasses the attributes, belief systems, self-regulatory abilities and functions through which personal influence is exerted (Rambe, 2022). It also allows formulation and realisation of intended actions (Hoyte, 2015; Mishra & Singh, 2024).

Nascent and established entrepreneurs' objectives, plans and visions are evident in their actions to achieve success (Rauch, 2020). To become and remain entrepreneurial requires an ability to sense and adapt to uncertainty; this ability is of critical importance for entrepreneurship, as it enables entrepreneurs to be dynamic, adaptable and self-regulating (Indrajith, Chikari, Gombiro & Kumar, 2021). Competence encompasses knowledge, skills and abilities. In an entrepreneurship context, the knowledge, skills and abilities relate to building the capacity to successfully create new means-to-an-end frameworks (Moser, 2020).

More specifically, gaining entrepreneurial competence requires entrepreneurs to attain the ability to identify and pursue new and unique opportunities and the ability to acquire and utilise the resources needed to be able to do so successfully (Jardim, 2021; Chandler & Hanks, 1994, cited in Mbeteh & Pellegrini, 2022). Competence can be gained and cultivated over time (Baron & Ensley, 2006; Bird, 1995; DeTienne & Chandler, 2004). Baron and Ensley (2006), as well as Pretorius, le Roux & Millard (2023), found that experienced entrepreneurs were able to identify a greater number of unrelated patterns than novices and that these patterns were more closely aligned with real business activities.

With experience, entrepreneurs develop skills in pattern recognition and are learning to be clearer and more specific. As proposed by DeTienne and Chandler (2004), as well as William (2023), the initial predisposition to innovativeness, highlighted in the researcher's definition of entrepreneurship, does not alter the ability to learn. Ge, De Massis and Kotlar (2022) differentiate the three prevalent sources of entrepreneurial knowledge: (a) previous work experience, (b) advice from experts and (c) imitation and copying. Environmental observations shape an individual's attitudes and beliefs and thus, indirectly influence their perceptions of desirability and the feasibility of their intended actions.

In addition, prior encounters with role models incline individuals to contemplate entrepreneurial action and influence their readiness to cultivate necessary abilities. The social sources of knowledge and skills become increasingly important when acquirable knowledge is understood.

Its acquisition is often difficult, but the unwritten knowledge is important to the development of competence. The cultivation of entrepreneurial skills is essential for entrepreneurial success, but the gaining of knowledge alone is insufficient and must be followed by the ability to use it (Pulka, Ramli & Mohamad, 2021; Zahoor, Khan, Khan & Akhtar, 2022; Ramadani, Agarwal, Caputo, Agrawal & Dixit, 2022).

The previously mentioned arguments indicate that nascent entrepreneurs are vigilant to entrepreneurial opportunities due to knowledge or information irregularities. Leong (2023) argued that, because information is generated through an individual's idiosyncratic life experiences, people would inherently possess different information. On the other hand, due to the stochastic dissemination of knowledge, certain individuals possess information that others lack (Hallonsten, 2023). Therefore, an incubation facility serves as a space where these competencies can be supported and enhanced for the incubatee to reach a stage of entrepreneurial reward. The entrepreneurial reward aspect is discussed in the next section.

3.5 The Entrepreneurial Reward

During the subsequent stage of entrepreneurial value creation theory, for the incubatee's business to maintain growth and profitability, it must shape or acquire capabilities such as negotiating skills and market penetration abilities (Mishra & Zachary, 2015). The nascent business may obtain external resources, if necessary, such as business capital or strategic alliances to acquire dynamic capabilities. At this stage, particularly during incubation, the due diligence modulator regulates the availability of external resources based on whether the entrepreneurial competence is adequately established in stage one and whether the potential entrepreneurial reward is valuable for the investor (Lanham-New, 2019).

If the incubator and the incubatee are unable obtain the needed external resources, the capital constraint forces the business to recycle back to stage one wherein the entrepreneurial competence is further developed. The financier's assessment occurs in two phases. In the first phase, the venture capitalist assesses the risk of loss and decides if the loss is affordable (Mishra & Zachary, 2015). In the second phase the venture capitalist maximises the estimated return at a given level of reasonable loss (Lanham-New, 2019; Goyal & Mishra, 2024).

3.6 Infusion of Entrepreneurial Capabilities into a Business Incubation Process

The first stage of entrepreneurial value creation is the identification of market opportunity . This stage is mainly interactive until the actual opprtunity is realised (Meckel, 2014). The entrepreneurial competence embeds the entrepreneurial ability and business quality and offers a temporary advantage to the entrepreneur to move to the second stage. The entrepreneurial competence formulated in stage one is assessed to establish whether the entrepreneur and their team have a winning strategy relative to the competition (Goyal & Mishra, 2024).

According to Pattanasak, Anantana, Paphawasit and Wudhikarn (2022), at the present time, business incubators are acknowledged as a significant accelerator that can support and develop new topics, such as bioeconomy, in industry. As the various roles and actions mentioned above illustrate, business incubators offer several significant advantages to new firms in particular, including self-sustainability. and knowledge transfers. The improvement and development of businesses will, in turn, affect economic growth and sustainability.

The entrepreneurial competence facilitates value creation and appropriation in the subsequent stage. In the second stage, the integration of business model design with dynamic capabilities facilitates value creation, resulting in the realisation of rewards (Meckel, 2014; Foss, Klein, Lien, Zellweger & Zenger, 2021). Figure 3.2 demonstrates how social learning can breach the gap in understanding the incubation process and the ability to realise entrepreneurial competence and reward.

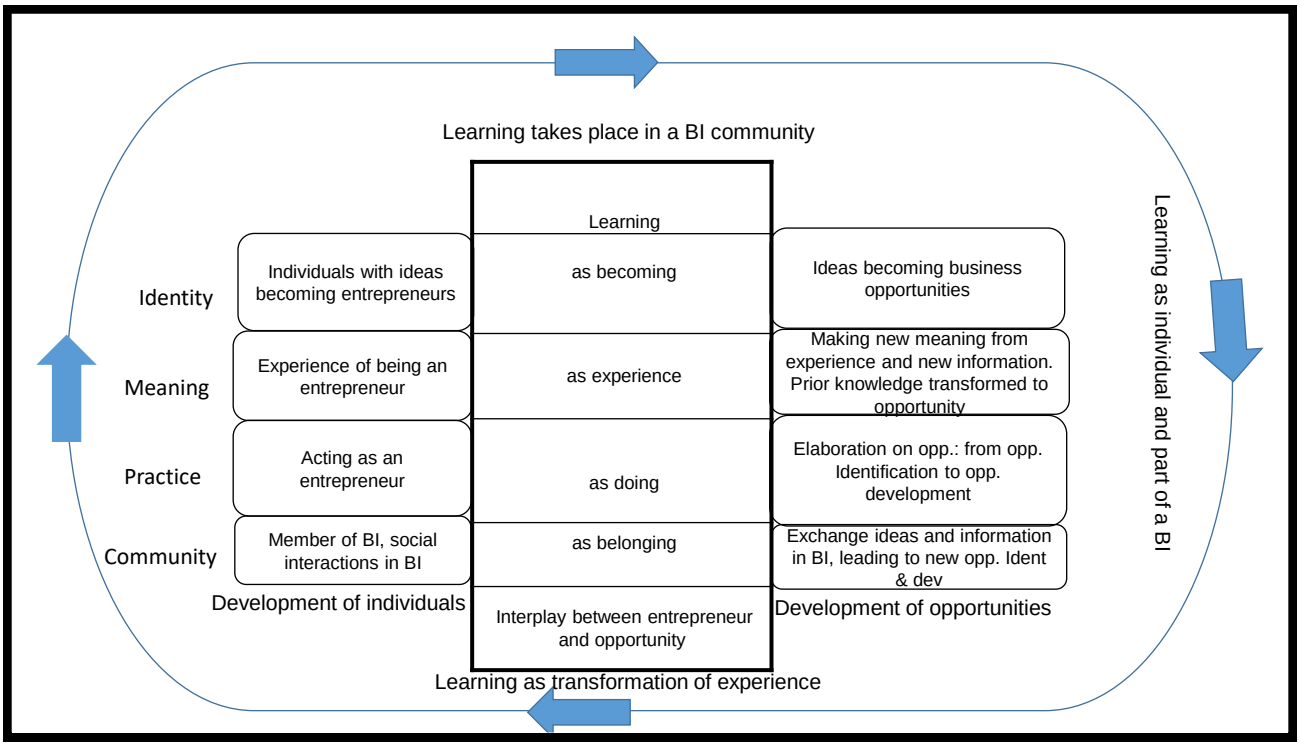

Figure 3.2. Role of Business Incubators in a Social Space. (Source: Meckel, 2014)

In Figure 3.2, Meckel (2014), recognises the substantial role of business incubators as a social environment that not only promotes but also influences learning within a business incubation setting. The left section focuses on development of the individual. The right column in the figure emphasises the opportunity identification and progress.

Meckel (2014) identified the four labels on the left side as (a) identity, (b) meaning, (c) practice and (d) community; and the central axis (learning) illustrates how the application of learning theories lends support in expounding the relationship between the incubatee and the opportunity. The central section is also where the incubatees' learning and the opportunity identification integrates into each other. It is because, in numerous instances, the business is at a nascent stage and during this pre-existence phase when incubatees own a business idea, it is common for the individual to share the same identity as the business being set up. The arrows around the figure describe how individuals and opportunities evolve in the experience revolution process.

In the context of the creation of entrepreneurial competence, the researcher finds a component of the entrepreneurial value creation process absent in the established procedure. The business incubation process involves a host of accelerating activities from the conception of an idea to the commercialisation of the final product or service, encompassing activities that transpire throughout the development process.

According to the founders of the business incubation theory (Hackett & Dilts, 2004; Assenova, 2020), the window of opportunity that is available for businesses in the current markets is limited and the incubator should enable their start-ups to address identified opportunities by offering incubation processes that reduce their time to market. Business incubators provide value-added services like access to law firms, patenting and intellectual property protection, business and technology consultants and marketing and basic financing. Incubation facilitates the rapid development of nascent entrepreneurs to capitalise on market opportunities or to improve their likelihood of acquisition by a larger entity (Lindelöf & Hellberg, 2023).

The access to basic financing that the incubators can provide also enables the start-ups to move fast without necessitating external funding to develop minimal viable products. The incubatee's time can be spent on value creation activities rather than worrying about their structural and organisational needs, which can be taken care of by the incubators (Andersson & Müller, 2023).

3.7 Conclusion

According to Pustovrh, Rangus and Drnovšek (2020), the business incubator is driven to create linkages with other ecosystem actors who intervene in entrepreneurial support structures to enhance entrepreneurship development and growth. The process of business incubation leads to a sort of hybrid business, encouraging interactions between the other ecosystem entities (Taylor, 2021). The business incubator ecosystem is a funnel where incubation management gradually focusses on operations, maintenance criteria, and funding mechanisms and to successfully create a network to benefit the incubatees (Hernández-Chea, Mahdad, Minh & Hjortsø, 2021). In the same perspective, the business incubator is a pivotal firm in its eco-system, where it tries to gather all the actors that incubatees need (Al-Baimani, Clifton, Jones & Pugh, 2021; Hausberg & Korreck, 2021).

This network aspect together with technical partners and financial backers of business creation, is essential in the development of an entrepreneurial eco-system. In this level, the business incubator may be studied as a platform that aims to create knowledge and business opportunities for incubatees. Their role is in monitoring and developing a personalised relationship with the incubatee. Business incubators' role is to help the incubatee identify good providers or the right partners that will meet their needs (Theodoraki & Messeghem, (2017); Al-Baimani *et al.,* 2021; Hausberg & Korreck, 2021).

According to Muthusamy (2022), as well as Allie-Edries and Mupela (2019), another key distinguishing feature of a business incubator is the duration of incubation, which is meant to last for a limited period. Following the incubation phase, nascent entrepreneurs must achieve financial viability and, ultimately, success to assure their sustainability post-exiting or graduating from a business incubation programme.

The researcher argues that, though one of the main functions of a business incubator is to create and nurture new businesses, the sustainability rate of these new businesses is crucial. Allie-Edries and Mupela (2019) further point out that in some cases, contact is usually maintained with post-incubatees to offer support and aftercare; yet, in certain cases, contact ceases after graduation. Without communication there is no assessment of success and survival. The researcher strives to move beyond the exit point to establish whether business incubators in the Gauteng Province succeed post-exiting an incubation programme. The research methodology utilised to understand if the influence and resources provided during business incubation processes enabled entrepreneurs to develop and grow their businesses in the market post-incubation will be discussed in the next chapter.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

The previous chapters followed the theoretical objectives supporting this study. Chapters two and three focused on the literature review, identification of gaps in relation to the influence of business incubators regarding the success and the performance of incubatees' businesses post-exiting the programme. The theoretical frameworks were evaluated concerning the specified research questions of (i) do the influences and resources provided during business incubation processes enable entrepreneurs to exist and grow their businesses in the market post incubation, (ii) how are incubators able to equip incubatees with sufficient resources for continued existence in the market post-incubation, (iii) how is the influence of business incubation processes on the development of entrepreneurial performance and growth of post-incubatees and (iv) how are the main business incubation process and service gaps identified during and post-business incubation? These questions emanated from the following research objectives:

a) To explore if the influence and resources provided during business incubation processes enabled entrepreneurs to exist and grow their businesses in the market post incubation.
b) To explore whether incubators equip incubatees with sufficient resources for continued existence in the market post-incubation.
c) To investigate the influence of business incubation processes on the development of entrepreneurial performance and growth of post-incubatees.
d) To develop a framework that will address the business incubation process and service gaps identified during and post-business incubation.

The methodology for the study was exploratory in nature. The analysis of academic articles and journals resulted in the supposition that an applicable framework for understanding the influence of business incubation services of entrepreneurial performance and growth post-incubation, in the Gauteng province of South Africa, needs to be informed empirically. The intention of this chapter is to give a background to the reasons for choosing the specific and appropriate methodology to support the research problem under exploration, as well as to highlight the strengths and weaknesses of the chosen technique.

The chapter commences with a section on research philosophy and paradigm that provides a clarification of the philosophical foundation of the study's objectives. It incorporates both ontological and epistemological viewpoints, as outlined in Chapter 1, followed by the research approach and design. The methods of data collection and the research tools used to collect data are presented in this chapter. The researcher states the variables investigated and how they were interpreted.

4.2 Research Paradigm

The term paradigm is derived from the Greek, meaning pattern, and has been broadly defined by many academics (Siddiqui, 2019). According to Saliya (2023), paradigm is the entire set of beliefs, values and techniques that are shared by members of a community (Kuhn, 2012). Guba and Lincoln (1994, cited in Khatri 2020), define a paradigm as a basic set of beliefs or a worldview that guides research action or an investigation. Paradigms are thus, important because they provide beliefs and dictates, which, for scholars in a particular discipline, influence what should be studied, how it should be studied and how the results of the study should be interpreted. The paradigm defines a researcher's philosophical orientation and, as we shall see in the conclusion to this paper, this has significant implications for every decision made in the research process, including choice of methodology and methods (Kivunja & Kuyini, 2017).

Research paradigms can also be referred to as ways in which scientists respond to three basic questions of ontology, epistemology and methodological questions (Siddiqui, 2019). Research paradigms can be categorised in positivism, interpretivism, constructivism and/or pragmatism (Perera, 2018; Nigussie & Bekele, 2021) Paradigms are differentiated as follows:

a) **Positivism (Analytic-Empirical-Positivistic-Quantitative Paradigm)**
   Positivism is also known as the scientific method because it gives emphasis to the position that the social world should be studied the way that physical phenomenon is studied. Positivists emphasise objectivity when discovering reality (Siddiqui, 2019).

b) **Constructivism**
   Constructivism or social constructivism is based on the premise that people seek to understand the world they live in through the development of subjective meaning of their experiences. A constructivist's goal is to rely as much as possible on the participants' views of the situation under study and interpret the meanings that the participants attach to the

world around them. The ability of an individual to construct knowledge of reality provides the genesis of the philosophical paradigm of social constructivism (Kumatongo & Muzata, 2021; Creswell, 2021).

c) **Pragmatic Paradigm**

Pragmatism embraces both quantitative and qualitative designs, hence it underpins the mixed method philosophical paradigm (Creswell, 2021). The use of mixed designs by pragmatics enables researchers to have a thorough understanding of the phenomena under study. Researchers in social sciences prefer pragmatism due to the flexibility inherent in the paradigm to choose the methods, techniques and procedures appropriate to the needs and purposes of the research (Creswell, 2021; Kumatongo & Muzata, 2021). Research is driven by the research questions rather than the methodological preference of the researcher. Methodology follows from the purposes and questions in the research. Mixed method research is a research parable whose time has come (Mirza, Mirza & Bellalem, 2023). Pragmatism adopts a methodologically eclectic, pluralistic approach to research, drawing on positivistic and interpretive epistemologies, based on the applicability, and regarding reality as both objective and socially constructed (Johnson & Onwuegbuzie, 2004, cited in Siddiqui, 2019).

d) **Interpretivism Paradigm**

The interpretivism research paradigm is characterised by a necessity to comprehend the world from an independent perspective, seeking an explanation inside the participant's frame of reference rather than that of an objective observer of the event (Dewi, 2021). At an axiological level, the interpretivism paradigm is more concerned with significance than rigour (Dewi, 2021; Sprake & Palmer, 2022; Saliya, 2023; Gannon, Taheri & Azer, 2022). Interpretive researchers concentrate on qualitative rather than quantitative aspects or relationships (Wellen & Fraenkel, 2013 as well as Saliya, 2023).

To explore if the influence and resources provided during business incubation enabled entrepreneurs to exist and grow their businesses in the market post-incubation, an interpretivism approach was adopted. The latter, which is exploratory in design, was selected with the intention of gaining new, data-rich results with which to assess the topic (Zubkov & Pondi, 2022). With interpretivism researchers tend to gain a deeper understanding of the phenomenon and its complexity in its unique context instead of trying to generalise the base of understanding the whole population (Muzari, Shava & Shonhiwa, 2022). Hamersley (2023) emphasises that, since multiple interpretations are developed among human relationships, interpretivism researchers

should try to understand the diverse ways of seeing and experiencing the world through different contexts and cultures and try to avoid the bias in studying the events and people with their own interpretations.

Interpretivism is a response to the over-dominance of positivism (Penchukova, 2020). Interpretivism rejects the notion that a single, verifiable reality exists that is independent of our senses. Interpretivism ontology is anti-foundationalism (Rehman & Alharthi, 2016). It refuses to adopt any permanent, unvarying (or foundational) standards by which truth can be universally known (Camargo, 2022). Instead, Interpretivists believe in socially constructed multiple realities. Truth and reality are created, not discovered. It is not possible to know reality because it is always mediated by our senses (Rehman & Alharthi, 2016).

In the case of understanding the influence of a business incubation programme on the performance of the post-incubatee's business, the philosophical orientation is based on the understanding of business development concepts and contrast. The research was driven by the desire to understand the business incubation trajectory and how it is carried out into the market by post-incubatees. Accordingly, epistemology shapes research design, influencing how researchers explore reality, truth and human nature. Knowledge creation is determined, in part, by the researcher-subject interface (Smith, 2023; Gannon *et al.,* 2022). This interpretivism approach to social science research accounts for diverse perspectives, recognising that individuals interpret events differently, with this likely to impact the generation of knowledge in the process (Gannon *et al.*, 2022). The researcher needed to be aware of the diverse perspectives presented by various entrepreneurs/post-incubatees in different industries, therefore, the methodological approach that seemed appropriate for this research study was a qualitative research methodology. The rationale thereof is discussed in the next section.

4.3. Research Methodology

Traditionally, there is a strong difference between the methods applied in the natural sciences and those in the social sciences and humanities (Rehman & Alharthi, 2016). The natural sciences tend to apply quantitative methods; the social sciences, especially psychology, human geography and sociology, are more qualitatively oriented. However, there are notable exceptions such as economics and important tranches of sociology, where quantitative approaches are predominant. Apart from quantitative and qualitative research methods, there is a third way: the use of mixed methods (Strijker, Bosworth & Bouter, 2020). These approaches are all characterised by different

philosophical belief systems and rely on different methodological practices (Leavy, 2022). They are discussed as follows:

4.3.1 Quantitative methodology

Quantitative methodology is characterised by deductive approaches to the research process aimed at proving, disproving or lending credence to existing theories. This type of research involves measuring variables and testing relationships between variables to reveal patterns, correlations or causal relationships. Researchers may employ linear methods of data collection and analysis that result in statistical data. The values underlying quantitative research include neutrality, objectivity and the acquisition of a sizeable scope of knowledge (Alfahad, 2021). This approach is generally appropriate when your primary purpose is to explain or evaluate (Leavy, 2022; Soma, 2021). It was not an appropriate method in exploring the influence of business incubation processes on the performance of post-incubatees' business growth and development.

4.3.2 Mixed methods methodology

Mixed methods methodology (MMR) involves collecting, analysing and some way of incorporating both quantitative and qualitative data into a single project. The phases of a research project are integrated or synergistic, with the quantitative phase influencing the qualitative phase, or vice versa (Hesse-Biber, 2010; Hesse-Biber & Leavy, 2010). MMR may result in a comprehensive understanding of the phenomenon under investigation because of the integration of quantitative and qualitative data. MMR is generally appropriate when your purpose is to describe, explain or evaluate (Alfahad, 2021). MMR is also routinely used in applied social and behavioural science research, including that which seeks to prompt community change or social action (Leavy, 2022; Soma, 2021; Han, 2018). The approach was not applicable in the case of an exploration of business incubation practices regarding the development and growth of post-incubatees' businesses.

4.3.3 Qualitative methodology

According to Muzari *et al.* (2022), qualitative research has the natural setting as the direct source of data. It is concerned with lived and real-life experiences and situations as they are created in the day-to-day course of events (Denzin & Lincoln, 2011). Researchers aim to understand experiences drawn from the context of real situations. In this case, context refers to a reality of

considering the physical, intellectual, cultural and emotional settings (Muzari *et al.,* 2022). This approach pursues an understanding of people's interpretations in a natural context (Lune & Berg, 2017). Its basis lies in the explanatory approach to societal realities and in the description of the lived and reflected experiences of human beings. The goal of the qualitative tradition is to have a deep understanding of the particular event or case. The particular refers to the natural setting and real-life practices. The qualitative research presents a researcher as the key instrument since data are generated by the researchers. The qualification of data in terms of interpretations is guided by what the researcher could have seen or heard during engagement with participants. A researcher is the primary collection instrument in qualitative research (Muzari *et al.,* 2022). The chosen methodology provides an aspect of personal or self-engagement by the researcher into the phenomena which leads to trustworthiness and credibility of the findings (Lune & Berg, 2017; Mohajan, 2018; Muzari, *et.al.,* 2022).

The purpose of qualitative research is based on researcher immersion in the phenomenon to be studied, gathering data, which provide a detailed description of events, situations and interactions between people and things providing depth and detail (Cooper & Schindler, 2011). For the basis of this research, the definition by Cooper and Schindler (2011) is deemed to be appropriate. Qualitative research includes an array of interpretive techniques which seek to describe, decode, translate and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world. Qualitative inquiry usually centres on in-depth and comparatively small samples selected purposefully unlike quantitative methods, which normally hinge on bigger samples chosen randomly (Lim, 2024; Tracy, 2024).

Qualitative methods and techniques were used at both the data collection and data analysis stages of the research process. The reason for choosing this approach was that business incubation is a prevalent topic for research but generally there is limited data about South African incubators, particularly the survival of businesses post-incubation. Qualitative research questions focus chiefly on three areas: language as a means to explore processes of communication and patterns of interaction within particular social groups; descriptions and interpretations of subjective meanings attributed to situations and actions and theory building through discovering patterns and connections in qualitative data (Fossey *et al.,* 2002; Lenberg, Feldt, Gren, Wallgren, Tengberg, Tidefors & Graziotin, 2024).

Relatively broad questions, rather than specific hypotheses to be tested, identify the initial focus of inquiry. These questions reflect the aim, which is to achieve depth of understanding. To achieve

this, as information (data) was gathered it informed the broad questions with which the researcher began and helped refine these questions. The modified questions created thereafter facilitate more targeted sampling and information acquisition as the study advanced (Fossey *et al.,* 2009). In this sense, qualitative research is designed to be flexible and responsive to context, characteristically being described as emergent (Tracy, 2024; Fossey *et al.,* 2009; Muzari *et.al,* 2022).

4.4 Determine the Research Design

A research design is the logic that links the research purpose and questions to the processes for empirical data collection and data analysis to make conclusions drawn from the data (Panke, 2018). The research design implies or relies on the chosen research paradigm. When using interpretive case studies for exploratory research, key decisions for the researcher concern the role of prior theory (Muzari, *et.al.,* 2022), the unit(s) of analysis as well as the number and selection of cases (Ponelis, 2011), the techniques to be used for data collection and the methods by which collected data will be analysed (Kirongo & Odoyo, 2020; Welch, Piekkari, Plakoyiannaki & Paavilainen-Mäntymäki, 2020). The sum of these decisions resulted in the case study protocol that helped to ensure uniformity in research projects where data were collected in multiple locations over an extended period (Creswell, Leigh, Larkin, Stephens, Violato, Brooks, Pearcey, Taylor, Stallard, Waite & Reynolds, 2021; Hendren, Newcomer, Pandey, Smith & Sumner, 2023). Hayes, Bonner and Douglas (2013) as well as Wei, Chen, Zhang and Zhang, (2020), define a research design as the entire process that will materialise during the research, from the time the problem is hypothesised to writing the full study.

The research design for this study was informed by the literature review in Chapters 2 and 3. A qualitative, inductive approach was used in the case study approach as it offered the researcher the opportunity to gain a deeper understanding of the role played by business incubators on small business owners and to what extent were they successful in helping to enable growth and sustainability. A case study research design from qualitative research methodology was adopted in this study as the scope of this case study is based on a phenomenon that is investigated deeply in its real context (Meşe & Sevilen, 2021). The case study approach was selected on the basis that the two business incubators in Gauteng are a representation of high-technology generation of business incubators in the mining and research and development industries.

4.5 Population and Sample Size

In interpretative research, the number of participants is usually relatively small. Novice researchers begin with a simple and straightforward case study because of the complexity of managing and analysing the large volumes of data (Carter, 2020; Yin, 2009; Hancock, Algozzine & Lim, 2021). Evidence from multiple cases is often considered more compelling and the overall study is therefore regarded as being more robust and provides a valid basis for understanding. Although there is no ideal number of cases, there are several recommendations: Ponelis (2011) believes that between four and 10 cases often works well, a sample size of six to eight subjects for homogenous samples. Case studies in small business research are often fewer than 10 (Lakens, 2022).

4.5.1 Population

According to the Department of Trade Industry and Competition (2024:44), South Africa has 105 incubators. From these 40% of the incubators were established either through a partnership between the Small Enterprise Development Agency, private sector, parastatals and government agencies. Thirty six percent (36%) are established through an Incubation Support Programme (ISP), which is an initiative by the Department of Trade Industry and Competition. It should be noted that 24% of incubators in South Africa are private business incubators that have been established without state funding (the dtic, 2024:11). About 75% of all incubators are in Gauteng, the Eastern Cape, KwaZulu Natal and the Western Cape. Only a few incubators exist in other provinces. In terms of industry distribution, most incubators focus on manufacturing (26%), agriculture (20%), construction (12%), multi sector (11%) and those serving ICT's (the dtic, 2024:11).

The population for this study was Gauteng entrepreneurs who have graduated or exited business incubation programmes as well as incubation managers, mentors and programme developers. The sample designated for this investigation is categorised into two groups. The first group comprised of entrepreneurs who went through an incubation programme and have exited or graduated from the programme. The second group were programme or incubation managers, mentors/coaches and programme developers. The entrepreneurs interviewed needed to have exited or graduated from the business incubation programme at least three months prior, as this allowed the researcher to have a sense of the degree of Total Early-Stage Entrepreneurial Activity (ETA); which is regarded as the percentage of adults (aged 18–64) who are starting or running a new business. By having, the two groups it allowed the researcher to obtain more understanding

of the incubation eco-system and its influence on survival mechanisms or dynamics faced by entrepreneurs after exiting or graduating from a business incubation programme.

According to Fossey *et al.* (2008), qualitative sampling does not require a fixed minimum number of participants to conduct sound qualitative research. However, sufficient depth of information needs to be gathered to fully describe the phenomena being studied (Staller, 2021; Small & Calarco, 2022; Castillo Goncalves, 2020). The gathered qualitative data are collected from interviews with participants who satisfied the selection criteria. The data on the number and details of post-graduated incubatees were sourced from the two operational incubators, one on the southern part of the Gauteng province and the other on the northern side of the province. Location was limited to incubators in the Gauteng Province. Permission was sourced in the form of a letter to the incubation manager to gain access to their list of graduated or exited incubatees. Gatekeeper letters were received from both business incubators, the researcher was also afforded an opportunity to present the purpose of the study to the management of both business incubators before gate keeper letters were issued. Both business incubators first contacted the participants to seek their permission before interviews were scheduled with the researcher.

4.5.2 Sampling method

The target population being entrepreneurs who have gone through an incubation process in Gauteng, South Africa, therefore, purposive sampling, rather than random sampling, was effective in selecting participants. Purposive sampling represents a group of different non-probability sampling techniques, also known as judgmental, selective or subjective sampling. Purposive sampling relies on the judgement of the researcher when it comes to selecting the units (e.g., people, cases/businesses, events, pieces of data) that are to be studied (Rai & Thapa, 2015). Usually, the sample being investigated is quite small, especially when compared to probability sampling techniques (Stokes & Bergin, 2006). Purposive or judgmental sampling is a type of sampling that researchers use when they want to find people with certain traits that are important to the study. People who took part in the research could give a lot of information about the research question (Rai & Thapa, 2015).

Purposive sampling is best or most effective in terms of research in conditions where there are just a confined number of individuals in an all-inclusive community, who possess characteristics that a specialist anticipates from the objective individuals (Stokes & Bergin, 2006; Rahman, 2023; Acharya, Prakash, Saxena & Nigam, 2013). The logic of purposive sampling is suited to research

with different aims. Its power lies in the selection of cases that are rich in information about the substantive research problem (Cooper, 2015). As such, purposive sampling was most appropriate for acquiring a thorough comprehension of the influence of a business incubation processes on the survival of businesses after exiting or graduating from a business incubation programme. The targeted sample excluded incubatees that are currently in a business incubation programme, graduated incubatees from outside the Gauteng province and private-sector incubation managers. The inclusion criteria and selection of criteria excluded are introduced next:

4.5.2.1 The inclusion criteria entailed

a) Incubatees who have graduated or existed a business incubation programme in the past 3 months or more;
b) Graduated incubatees who are in the Gauteng Province;
c) Graduated incubatees who are 18 years and older;
d) Incubation managers/programme managers;
e) Minimum of three incubators were contacted and
f) Multiple industries included.

4.5.2.2 The selection criteria excluded

a) Private sector incubators;
b) Entrepreneurs who are currently undergoing a business incubation process;
c) Graduated incubatees who are outside the Gauteng Province and
d) Incubation managers/programme managers who are outside the Gauteng Province.

Data was, therefore, triangulated using focus groups, interviews and literature reviews. The triangulation process is discussed in the following section.

4.6 Triangulation Process

According to Staller (2021), in grounded theory, you stop when reaching theoretical saturation, which is when collecting more empirical evidence is not producing any additional theoretical insights. It is at the point in the analysis when the researcher does not see new information in the data related to codes, themes, or theory. Yet, the concept of saturation has migrated from

grounded theory to other types of qualitative inquiry. Morris (2006, cited in Staller 2021) argues that the size of the sample will be driven by data collection. One rule is to stop when redundancy sets in. In this perspective saturation is largely equated with redundancy (Staller, 2021). Specifically, the purpose of triangulation is to help identify inconsistencies or breaks in emergent patterns in the findings that can lead to a deeper understanding of the phenomenon; inconsistencies are a strength, not a weakness.

The end goal is to use triangulation to reduce systematic bias, which can improve the evaluation of the findings (Lemon & Hayes, 2020). Specifically, triangulation serves as an opportunity to reinforce the credibility and dependability of a study, which is one of the strengths of qualitative research as fewer layers exist between the researcher and the participants in the study (Lemon & Hayes, 2020). The triangulation process for this research study entailed an array of techniques, which included individual in-depth interviews, focus groups and literature review.

Focus groups are facilitated group discussions that make use of the group interaction as the means to explore the research issue being studied, so the use of group processes distinguishes them from individual interviews. Thus, participants are usually selected because of shared social or cultural experiences (e.g. gender, ethnicity) or shared concerns related to the study focus (Fossey *et al.,* 2009). Because of the group context, data collected in this fashion reflect the collective views of group members rather than an aggregation of individual interviews; data may be enhanced by group dynamics that aid recall and elaboration and may overlook or minimise views that are sensitive or held by a minority within a particular group (Fossey *et al.,* 2009; Sim & Waterfield, 2019).

Focus groups are most informative when group interaction is effectively facilitated (Fossey *et al.,* 2009). A focus group is a well-planned group discussion, led by a skilled moderator who creates as natural an environment as possible to get insights into the participants' thinking. In the focus group setting, different opinions and perspectives will emerge, all of which combine to paint a detailed picture (Reisner, Randazzo, White Hughto, Peitzmeier, DuBois, Pardee, Marrow, McLean & Potter, 2018; Nyumba, Wilson, Derrick & Mukherjee, 2018; Munsch, 2021).

Furthermore, in-depth interviews were conducted with participants. These interviews were undertaken with the post-incubatees who had graduated or exited a business incubation programme. Data collection as a main stage in research can overshadow the quality of achieving results by decreasing the possible errors which may occur during a research project (Taherdoost,

2021). Therefore, alongside a good design for the study, plenty of quality time should be spent in the collection of data to gain appropriate results since insufficient and inaccurate data prevent assuring the accuracy of the findings (Kabir, 2016; Taherdoost, 2021). The data collection methods are discussed below.

4.7 Data Collection

One of the main stages in a research study is data collection that enables the researcher to find answers to research questions. Data collection is the process of collecting data aiming to gain insights regarding the research topic (Taherdoost, 2021). There are different types of data and different data collection methods (Taherdoost, 2021). Interviews and focus groups are common modes of qualitative data gathering. Interviews are used in most types of qualitative research. They are typically the technique of choice in phenomenological research, depending as it does on first-person descriptions of experience, although phenomenological studies have used written autobiographical accounts and creative techniques for eliciting subjective descriptions (Lumma & Weger, 2023; Sholokhova, Bizzari & Fuchs, 2022).

According to Monday (2020), interview is a way of collecting data as well as gaining knowledge from individuals. Interviews are an interchange of views between two or more people on a topic of mutual interest, seeks the centrality of human interaction for knowledge production and emphasises the social situation of research data. Indeed, interviewing is expected to broaden the scope of understanding the investigated phenomena, as it is a more naturalistic and less structured data collection tool (Monday, 2020).

Qualitative research interviews aim to elicit participants' views of their lives, as portrayed in their stories, gaining access to their experiences, feelings and social worlds. Interview guides usually contain a list of questions and prompts designed to guide the interview in a focused, yet flexible and conversational manner (Fossey *et al.,* 2009). This approach to data collection is advantageous in ensuring sensitivity to participants' language and obtaining their knowledge (Fossey *et al.,* 2009; Tavory, 2020). The most suitable method to employ in this research was the interview methodology. Wang (2023) highlights the following benefits:

a) Interviews allow informants the freedom to express their views in their own terms.
b) Interviews can provide reliable, comparable qualitative data.

The interview technique, as a form of collecting qualitative data, is at its most useful when it gives insight into how individuals or groups think about their world and how they construct the reality of that world (Sallis, Gripsrud, Olsson & Silkoset, 2021)). The style of interview used for this research was in-depth and semi structured, where the interviewer asked certain, major questions the same way each time, but was free to alter the sequence and probe for more information (Roberts, 2020.).

The in-depth approach is necessary for the accumulation of useful stories from respondents (Tinsley & Lynch, 2001). The semi-structured format assists in keeping interviews relevant, whilst at the same time allowing for greater ease of expression from the respondents (Cooper & Schindler, 2011). The researcher chose open-ended interview questions as it allowed participants to discuss their opinions, views and experiences fully in detail, whereas a set interview with closed ended questions may inhibit them from expressing their full opinions and feelings. With the use of structured interviews, the researcher had a prepared a topic guide or a certain number of questions to be covered with each participant (Rens, 2021).

In South Africa incubators are mostly organised in such a way that there is a centre or business development manager who oversees the overall administration, coaching and business development process (Lose, 2019). The centre manager or business development manager of the incubator functions as the overall administrator of the strategic issues involved in business incubation (Rens, 2021; Ojango, 2022; Simango, 2022).

To seek data on graduated incubatees, it was critical to seek permission and a list of post-incubatees from centre managers who are the overall administrators of an incubation business. Following gaining access to the post-incubatees' data, interviews were set with 12 post–incubatees and centre managers. The interviews consisted of seven open-ended questions, uniquely developed by the researcher for the sole purpose of this study. The interviews were conducted via Microsoft TEAMS; however, interviews with incubation managers were conducted face-to-face. All interviews were conducted in English. The interviews lasted between 45 and 60 minutes and the researcher recorded the sessions.

Following the interviews, a focus group session was conducted with centre managers.
Therefore, in-depth interviews are justified for this study for the following reasons:

a) The in-depth interview will seek to get the respondent to freely discuss feelings or beliefs about the subject of interest and provide a more detailed response (Chowdhury & Shil, 2021; Zou & Xu, 2023). Being able to discuss issues in detail will provide the researcher with the opportunity to clarify and expand on issues and provide a significant contribution to data analysis (Simango, 2022).

b) The benefits of using in-depth interviews include the opportunity to discuss particularly sensitive topics with participants. The interviewee is more likely to be comfortable about being candid in opinions and often the data received have depth and comprehensiveness (Lim, 2024).

c) The researcher will have greater control over the selection of the participants when using in-depth interviews. The nature of in-depth interviews allows researchers to explore the views of an individual respondent for more precise interpretation (Knott, Rao, Summers & Teeger, 2022; Osborne & Grant-Smith, 2021).

d) The in-depth interview often provides interviewees with a feeling of empowerment, as they enjoy the fact that their opinion is being sought (Osborne & Grant-Smith, 2021).

e) In-depth interviews will provide the opportunity for building trust and rapport between the interviewer and interviewee, which, in turn, improves the quality of data obtained (De Villiers, Farooq & Molinari, 2022).

Furthermore, in gaining data from mentors and incubation managers, a focus group interaction was used through a snowball sampling method. One of the most well-known forms of non-probability sampling is the snowball sampling method, which is particularly suitable when the population of interest is hard to reach and compiling a list of the population poses difficulties for the researcher. Snowball sampling or chain-referral-sampling of a hidden population begins with a convenience sample of initial subjects, because if a random sample could be drawn, the population would not be restricted by the fact that they are hidden. These initial subjects serve as seeds. Firstly, the wave one subject is recruited; wave one subjects, in turn, recruit wave two subjects and the sample consequently expands wave by wave like a snowball growing in size as it rolls down a hill (Hossan, Dato'Mansor & Jaharuddin, 2023; Yuan, Zeng, Swedlow & Qi, 2022).

The sample in this study originated from post or graduated incubatees whose information was obtained from incubation management, in the Gauteng province of South Africa. The researcher first contacted incubation managers using the UNISA permission request letter, seeking

permission to interview post-incubatees and to gain access into their database, however, Incubation A showed the researcher a list of their post-incubatees and their categories and contacted the post–incubatees by informing them of the researcher's intentions; inquiring whether they would be interested in participating in the study. Once the participants showed interest, they were then contacted by the researcher to schedule interview times and schedules. Incubator B contacted their post-incubatees to inform them of the study and to seek their permission to participate, the incubator confirmed the times with their post-incubatees, and the researcher was asked to adhere to the slots provided.

In applying snowball sampling, using purposive criteria, incubation managers were asked to provide names of incubation managers and mentors who would be interested in attending focus group sessions. Focus groups discussions are frequently used as a qualitative approach to gain an in-depth understanding of social issues. The method aims to obtain data from a purposely selected group of individuals rather than from a statistically representative sample of a broader population (Bani Issa, Al Akour, Ibrahim, Almarzouqi, Abbas, Hisham & Griffiths, 2020). A focus group discussion is sometimes seen as synonymous with interviews, especially the semi-structured one-on-one and group interviews. Similarities between these techniques relate to the tendency to uncover people's perceptions and values (Nyumba *et al.,* 2018). The recruitment of participants was based on the topic of the influence of business incubation on the performance of businesses after graduating from an incubation programme.

The researcher conduced both focus group sessions and interview sessions using Microsoft Teams. Finding a way to bring these individuals into the same space for a focus group session, in particular, provided a unique challenge as participants were located at different offices and some were still working from home following the COVID-19 pandemic. According to Frey and Bloch (2023), these challenges made it difficult to accommodate participants' schedules in a face-to-face or synchronous focus group setting. Microsoft Teams was the chosen platform for conducting the focus group because participant recruitment targeted members associated with the subject which provides each person with access to the platform (Frey & Bloch, 2023). This access also suggests that some participants already have familiarity with the service. Interaction in Teams takes place via structured messages posted to specific channels that can be customised to reflect different topics (Frey & Bloch, 2023).

Unless specified, Microsoft Teams also provides notifications to users when group members post new messages or respond to previously posted messages (Frey & Bloch, 2023). Following the

data collection phase, when conducting the data analysis, researchers need to be able to code, sort and identify themes and relationships from the data. The goal of the phenomenological approach is to describe the meaning of the lived experiences of a phenomenon by the people who lived it. The way to analyse the data is to focus on what participants said while describing the phenomenon (Tomaszewski, Zarestky & Gonzalez, 2020). A pilot study was conducted to determine the appropriateness of the research investigation.

4.7.1 Pilot Study

Pilot studies are so-called feasibility studies which are small scale versions or trial runs, done in preparation for the major study. These are also conducted for pre-testing or trying out of a specific research instrument. In the context of this research, the pilot study was conducted to determine the appropriateness of the semi-structured interview protocol (Priyadarshini, 2020). The researcher utilised the first two interview sessions with post-incubatees as pilots. Each interview lasted for about 90 minutes. The execution of pilot interviews was beneficial as it allowed the researcher to design a preliminary description of the interview schedule and to contemplate improvements for subsequent interviews following the pilot.

The principal insights from the pilot study indicated that the researcher should dedicate additional time to the introduction session, enabling participants to articulate their experiences related to their businesses. An additional insight gained was that formulating a closing question regarding how incubators might enhance their services enabled post-incubatees to articulate their perceptions of the potential influence of business incubators on businesses rather than solely recounting their actual experiences. Therefore, the researcher offered interviewees an opportunity to give a detailed background of their business and why they joined an incubation programme. The researcher allowed the incubatees an opportunity to mention their experiences of while they were incubated. This was followed by an advisory or recommendation by post-incubatees on how the programme can be enhanced.

The pilot interviews were insightful and gave a description of an entrepreneur’s learning process (which included aspects such as product or service development and learnings on the legal processes) and showed that there was entrepreneurial value creation in understanding the process of business growth and development (such as market identification) in the South African context by using a qualitative study. The pilot study’s interview schedule was useful in capturing the valuable information required for the data collection section of the study. However, the

researcher felt that the interviews needed to be more structured to ensure that the researcher received valuable information regarding the impact of the business incubation programme on the business ventures after leaving the incubation programme. The researcher structured the interviews to accommodate a longer introductory session where the participants spoke about their businesses and industries. The researcher then developed an interview plan to reflect experience gained from the pilot study in the following ways:

a) Together with the participant information sheet, presented at the beginning of the interview, the researcher afforded participants the opportunity to introduce themselves and give a background about their business. The process assisted participants to focus on a particular stage of the business development, in relation to the business incubation programme.
b) The other change made was to add a closing question: “What advice would you give to operators of the incubation programme?” On reflecting on the outcomes of the pilot, the researcher found that the motives for participants to enter a business incubation programme might be relatively diverse to the direct impact the business incubation programme had on their development.

These additional questions assisted in further investigating the role the business incubation programme played in the entrepreneurial value creation. The approach followed by the researcher in conducting data analysis is discussed in the following section.

4.8 Data Analysis

According to Mezmir (2020), often, qualitative data analysis combines approaches of a rough analysis of the material (overviews, condensation, summaries) with approaches of a detailed analysis (elaboration of categories, hermeneutic interpretations or identified structures). Meaning making can refer to subjective or social meanings. Qualitative data analysis could also be applied to discover and describe issues in the field or structures and processes in routines and practices. The final aim is often to arrive at generalisable statements by comparing various materials or various texts or several cases. When analysing data, the qualitative researcher attempts to make sense and interpret the phenomena in terms of the meaning the participants place on them (Creswell, 2014).

A variety of qualitative data analysis methods such as content analysis, constant comparison and pattern matching can be used. Whichever approach is chosen, qualitative researchers should make the process involved in their collection and analysis of data as explicit as possible. Researchers employing qualitative methods that fail to do so, do little to encourage theory development or progress current knowledge and understanding (Tracy, 2024). Fundamentally, analysing qualitative data entails “coding” which refers to categorising units of data into clusters that are internally coherent and that are conceptually distinct from one another. These categories ultimately become the concepts, the relationships and the proposed explanations for relationships that form the foundation for theory building. However, at the outset, they will vary in their level of abstraction and the extent to which they are specific to the context (Fischer & Guzel, 2023; Grodal, Anteby & Holm, 2021). The purpose of data analysis is to organise, provide structure to and elicit meaning from research data (Knott *et al.,* 2022). An ongoing approach was followed in that data collection and analysis occur simultaneously so that the analysed data guides subsequent data collection (Mezmir, 2020).

Content analysis can be broadly defined as systematic coding of qualitative or quantitative data based on specific themes or categories. Content analysis can also be used in applied or theoretical studies. Among the most common examples, counting and categorising words in a measurement tool or calculating the frequencies of themes through document analysis are widely used procedures. Coding and systematically categorising data obtained through observations or interviews is another example of content analysis (Dinçer, 2018). The content analysis described in this research study was inductive.

Inductive content analysis is considered wider in its application, compared to thematic analysis, due to its connection to quantitative research. Because of this, content analysis can be used for both qualitative research and quantitative research. It is further considered to be better suited for handling larger sets of data, compared to thematic analysis. Inductive content analysis is considered to have a clear epistemology, providing the researcher with a route to follow on how to do research (Humble and Mozelius, 2022).

The analysis began with a search for meaning and went on with different meanings being identified and related to each other. The analysis was aimed to try to understand the complexity of meanings in the data rather than measure their frequency. It involved researcher engaging in the data and the analysis. Both the interview and focus group data were analysed using the same method (content analysis) and techniques (verbatim transcription, open coding). The researcher

transcribed the interviews verbatim, and the researcher utilised Colaizzi's (1978, cited in Praveena & Sasikumar, 2021) seven-step approach to data analysis in analysing the transcripts. The codes were considered and clustered together according to similar meanings that could be attached to the words. Each interview was coded and thereafter themes and subthemes identified. Afterwards, the researcher considered the themes of all the interviews and further changes occurred to integrate the themes as a collective for the study. The analysis contained a search for patterns of meanings being further explored and determining how such patterns were organised into themes. While conducting the analysis, the researcher strived to understand meanings embedded in the experiences of post-incubatees and incubation practitioners and therefore, described those meanings textually.

Through the analysis, details and aspects of meaning were explored, requiring reading and a reflective writing and the development of themes. According to Braun and Clarke (2022), inductive approaches are particularly useful when exploring new terrain, and there is much new terrain to be explored for the qualitative researcher. Table 4.1 outlines the seven steps in Colaizzi's (1978) method of data analysis as applied in this study and on which the research is based.

Table 4.1: Colaizzi's Method of Data Analysis Content Analysis (Source: Marrow, Rosie, Rodriguez, Alison, King & Nigel 2015, as well as Williams, 2024)

No	Step	Description
1	Familiarisation	The researcher familiarises him or herself with the data by reading through all the participant accounts several times.
2	Identifying significant statements	The researcher identifies all statements in the accounts that are of direct relevance to the phenomenon under investigation.
3	Formulating meanings	The researcher identifies meanings relevant to the phenomenon that arise from a careful consideration of the significant statements. The researcher must reflexively bracket his or her pre-suppositions to stick closely to the phenomenon as experienced (though Colaizzi recognises that complete bracketing is never possible).
4	Clustering themes	The researcher clusters the identified meanings into themes that are common across all accounts. Again, bracketing of pre-suppositions is crucial, especially to avoid any potential influence of existing theory.
5	Developing an exhaustive description	The researcher writes a full and inclusive description of the phenomenon, incorporating all the themes produced at step 4.

6	Producing the fundamental structure	The researcher condenses the exhaustive description down to a short, dense statement that captures just those aspects deemed essential to the structure of the phenomenon.
7	Seeking verification of the fundamental structure	The researcher returns the fundamental structure statement to all participants (or sometimes a sub-sample in larger studies) to ask whether it captures their experience. He or she may go back and modify earlier steps in the analysis in the light of this feedback.

To achieve complete data saturation, thorough reading and re-reading was necessary to ensure all recurring information and variations were identified and, only when no new information could be obtained, is this achieved (Roberts, Dowell & Nie, 2019). The researcher identified codes applied to the interview transcripts within the initial six interviews of the study. Furthermore, codes applied to the first focus group sessions were also identified within the second group session.

Volumes of data are gathered throughout the data collection process which requires the researcher to complete a reduction in data through categorising and identifying similar themes. This process allows the researcher to interpret findings more easily (Taherdoost, 2021; Lochmiller, 2021; Mezmir, 2020). Initial data was coded to indicate the concept or dimension it represented, and the researcher linked concepts together into a theory or explanation of the phenomenon studied (Naeem, Ozuem, Howell & Ranfagni, 2023). Once each of the interviews had been transcribed, the researcher uploaded the transcripts onto ATLAS.ti.

ATLAS.ti was used to code the findings in the interviews. The data were prepared by doing the following: (a) noting a date, time and place of interview; (b) individual's name and business; (c) questions to be italicised; (d) names of researcher and interviewee in capital letters; (e) ellipsis used to indicate pauses in speech; (f) words emphasised or spoken more loudly than others are capitalised; (g) double brackets used to indicate researcher's descriptions of pertinent observations made during the interview; (h) ensure no grammatical or typographical errors and (i) each transcript was saved separately (Saunders & Lewis, 2017; Barbeau, 2019).

ATLAS.ti comes from a grounded theory tradition (building hypotheses inductively) and was specifically developed to deal with concepts (Schebesta, 2018). Coding techniques complement iterative reading by systematically categorising and organising data, enabling the extraction of key concepts, ideas and themes. Together, these interconnected practices strengthen the rigor, trustworthiness and validity of thematic analysis, leading to insightful interpretations and the

development of rich theoretical insights (Fuchs, 2023). These are discussed in detail in the following section.

4.9 Trustworthiness and Credibility

The five strategies to establish trustworthiness include credibility, transferability, dependability, authenticity and confirmability. The strategies are intertwined and interdependent and serve as alternatives to the conventional quantitative measures for quality such as internal validity, external validity, reliability and objectivity. Credibility is the replacement for internal validity and is rooted in the truth value, which asks whether the researcher has developed and articulated a certain level of confidence in the findings based on the phenomenon under investigation. The truth value is derived from an in-depth exploration of the human experience as it is performed by the participants. In other words, truth derives from the participant's lived experiences, which does not necessarily lead to universal truths, but rather an in-depth understanding of that person's unique reality (Lemon & Hayes, 2020).

Trustworthiness, or rigor of a study, refers to the degree of confidence in data, interpretation and methods used to ensure the quality of a study (Pilot & Beck, 2018; Johnson, Adkins & Chauvin, 2020). Lincoln and Guba (1985, cited in Kakar, Rasheed, Rashid & Akhter, 2023), rely on four general criteria in their approach to trustworthiness. These are credibility, transferability, dependability and confirmability. We consider each of these factors and add perspectives from others who have written on trustworthiness in qualitative research. The degree of trustworthiness of qualitative research can be measured by ensuring the credibility, transferability, dependability and conformability of research design, process and action (Kakar *et al.,* 2023). These aspects are discussed as follows:

4.9.1 Credibility

Credibility is like internal validity in quantitative analysis and provides the actual data about the phenomenon; that credibility shows the truth of data and respondents' views and their interpretation (Kakar *et al.,* 2023). Credibility of the study, or the confidence in the truth of the study and therefore the findings, is the most important criterion (Pilot & Beck, 2018). According to Connelly (2016), techniques used to establish credibility include prolonged engagement with participants, persistent observation if appropriate to the study, and peer-debriefing, member-checking and reflective journaling. Evidence should also be presented of iterative questioning of

the data, returning to examine it several times. Negative case analysis or alternate explanations should be explored as well.

This research ensured credibility using a prolonged engagement approach and member checking approach. Prolonged engagements are one of the most critical strategies suggested by Lincoln and Guba (1985, cited in Kakar *et al.,* 2023), to improve the credibility of qualitative research. The qualitative researcher needs to spend more time with respondents, and in context, to identify and document themes, patterns and values and develop trust (Karunarathna, Gunasena, Hapuarachchiand & Gunathilake, 2024). The researcher, therefore, extended interview times and focus group time schedules, to better understand the nature of the post-incubatee's business and the learning they acquired from a business incubation process and how they are performing after graduating from a business incubation programme.

The second process was member checking. Member checking, also known as respondent or participant validation, is the process of soliciting feedback from one's participants or stakeholders about one's data or interpretations. It is mostly used to validate, verify or assess the trustworthiness of qualitative results (Motulsky, 2021). Two primary approaches to participant verification are used. The first is providing the interview transcript or an individual case summary to the participant to review, correct, delete, edit or add to, usually in writing or with an additional interview. This step is taken to claim that the transcription or interview was accurate, and that the data collection process is valid.

Another rationale for transcript review is that the researcher desires to share power and involve the participants by providing them the opportunity to correct errors, affirm their original words or add their own revised thoughts or interpretations (Thomas, 2017; Motulsky, 2021). Given that the interviews and focus group sessions were conducted using Microsoft Teams, the researcher provided access to the interview transcript to all participants to review and correct.

4.9.2 Dependability

Dependability refers to the stability of data over time and under different conditions. Therefore, it is important to state the principles and criteria used to select participants and detail the participants' main characteristics so that the transferability of the results to other contexts can be assessed (Kyngäs, Kääriäinen & Elo, 2020). The main question is then if the findings of an inquiry

would be repeated if it were replicated with the same or similar participants in the same context (Daher, Abo Mokh, Shayeb, Jaber, Saqer, Dawood, Bsharat & Rabbaa, 2022).

Procedures for dependability include maintenance of an audit trail of process logs and peer-debriefings with a colleague (Cronin, 2018). Process logs are researcher notes of all activities that happen during the study and decisions about aspects of the study, such as whom to interview and what to observe (Poedjiastutie, 2021). The researcher kept a process log and had frequent debriefing meetings with the study supervisor.

4.9.3 Confirmability

Confirmability is the neutrality or the degree to which findings are consistent and could be repeated (Nazar *et al.,* 2022). Neutrality is the degree of fairness of results consisting of the purity of initial responses and how bias-free they are (Kakar *et al.,* 2023).

Qualitative researchers keep detailed notes of all their decisions and their analysis as it progresses. In some studies, a colleague reviews these notes; in other studies, they may be discussed in peer-debriefing sessions with a respected qualitative researcher (Cronin, 2018). These discussions prevent biases from only one person's perspective on the research (Nazar *et al.,* 2022). To prevent bias the researcher kept detailed notes of the discussions and their analysis as the research progressed.

4.9.4 Authenticity

According to Morgan (2022), authenticity involves the extent to which a document is genuine; the authenticity of the documents to be analysed is a foundational element of any research. Authenticity is demonstrated when the researcher can show several different perspectives and depth of understanding that fairly represent these perspectives. Therefore, prolonged engagement, persistent observation, reflexivity and member checking are critical processes for ensuring fairness (Shannon & Hambacher, 2014; Amin *et al.,* 2020).

To ensure fairness the researcher assessed all the viewpoints and accessed whether these viewpoints were represented in a fair manner. Fairness is achieved when stakeholders are empowered to have a voice and encouraged to participate in the consensus building process (Amin *et al.,* 2020). To ensure authenticity, the researcher ensured that viewpoints of all involved

in the business incubation process were well represented, these included post-incubatees, incubation mangers, programme developers, mentors and coaches.

4.9.5 Transferability

Transferability shows the degree of application of the research finding in other exact natures of context, people, groups and settings (Kakar *et al.,* 2023). It refers to the process in which qualitative research findings can be extrapolated and applied to other settings or contexts (Elo *et al.,* 2014). The process is also referred to as analytical generalisation which involves a reasoned judgment about the extent to which the findings from one study can be used as a guide to what might occur in another situation (Lemon & Hayes, 2020).

This is based on both the researcher's articulation that findings are transferable and on the reader's assessment of whether the findings are transferable to their settings, which is known as transferability judgment (Nazar *et al.,* 2022). Transfer is only possible when a thick description provides a rich enough portrayal of circumstance for application to others' situations and is usually at the behest of the local constituents.

Transfer applications such as these rely on the researchers' thick descriptions that would include contextual information about the field work site. Businesses and other influential participants in the original study would have been stipulated and described in detail (Stahl & King, 2020). To ensure transferability, the researcher provided descriptions of the nature of the businesses post-incubatees are running, their experiences during business incubation and after the incubation stage.

4.10 Ethical Considerations

All research studies present several ethical and moral dilemmas, which must be identified and addressed prior to carrying out any research study, in order to protect all participants from potential harm (Cooper, 2011). Research that involves the use of human participants needs to seek for ethical approval from an ethics committee. Saunders *et al.* (2018) further expressed that all research that involves human tissues requires that ethical approval must be sought by the university's research ethics committee. Obtaining ethical approval means that the researcher has adhered to the acceptable ethical standards of a reliable and genuine research study (Bickman & Rog, 2009; Brown, Spiro & Quinton, 2020; Williams, 2023).

For the application process, the researcher must make available the research proposal, together with the data collection instrument, participants' information sheet and consent form and then apply for ethics from the university's ethics committee by filling the ethics form online and attaching the proposal for submission (Sonteya & Seymour, 2012). The ethics committee has been named differently by many universities based on the country or university of application (Laryeafio & Ogbewe, 2023). Therefore, it is important to ensure that the data gathered is done by means of an approach which is as honest and accurate as possible (Tinsley & Lynch, 2001).

For this study the researcher sought permission to conduct research from the relevant parties involved in the research and from the relevant authorities (incubation managers and previous incubatees), while assurance of confidentiality of the information provided by respondents was also given, as respondents were not asked to provide their names. In the implementation of ethical considerations for the study, the researcher followed the University of South Africa's guidelines concerning the involvement of human participants. The guidelines included:

a) **Ethical clearance** – The low-risk application was made to the College of Economic and Management Sciences (CRERC) in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment. An approval was granted with provisions that the researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics (see Appendix 1).
b) **Informed Consent** – Permission was also sought from the two incubators first before any data on graduated incubatees and management team were released. The researcher met with the monitoring and evaluation committee of Incubator A to explain the purpose of the research study before consent was granted. With Incubator B, the researcher met with the manager for the Hub to explain the purpose and calibre of participants required, consent was granted after the meeting (see Appendix 3.1).
c) **Confidentiality and privacy** – Before commencing with the interview session, the researcher informed participants that their identity and personal details will not be shared with anyone, and the information will be stored in a secure space for a period of five years before being destroyed.

The following principles were followed to ensure that the participants' personal information is kept safe and not shared unnecessarily:

4.10.1 Beneficence and non-maleficence

The study findings will provide advantages and impose no detriment to the participants or society. The researcher aims to contribute to the business development industry of South Africa with this study. Privacy and confidentiality were always maintained, and all findings are portrayed in a confidential manner with no personal or identifiable information recorded or printed in the study. Audio-taped interviews were transcribed verbatim; thus, no names were recorded during the interviewing process. Transcribed data were stored in password-protected folders with restricted access and stored on an external hard drive, which only the researcher has access to. Principles of the Protection of Personal Information Act (POPIA) of 2020, have been applied.

4.10.2 Autonomy

The researcher respected the human right of free choice and ensured informed consents were completed before carrying out any interviews. The researcher ensured that a regular review of what the participants have given consent to is carried out; this is referred to as a procedure of consent, which enables the researcher to renegotiate features of the consent form derived from the changing description of inquiry (Hatch, 2023).

All participants were reassured that the option to withdraw from the research at any time, without penalty or repercussions was upheld. All findings and results presented were that of facts stated in the interviews. All participants' responses were portrayed as they have done so in the interviews, no false information or accusations was included in the final report. Ethics deals with moral problems related to the practice of research. Ethics is referred to as an inquiry into what is right and wrong and what researchers ought to do (Mirza, Mirza & Bellalem, 2023).

When it comes to research, ethics refer to the norms and values that guide decisions regarding the collection of data and analysis of said data, as well as the dissemination of findings (Mirza, Mirza & Bellalem, 2023). Ethical knowledge is of a tacit nature more often than not (Gedutis *et al.,* 2022; Bos, 2020; Mirza, Mirza & Bellalem, 2023). Ethical issues may arise at any point during any study regardless of the scrupulous planning, therefore, it is important that possible ethical issues are identified, prevented and reviewed as best as possible prior to, during and after the study. Ethical principles provide direction to the possible issues (Cooper & Schindler, 2011;

Kretser, Murphy, Bertuzzi, Abraham, Allison, Boor, Dwyer, Grantham, Harris, Hollander & Jacobs-Young, 2019).

4.11 Conclusion

This chapter commenced by providing a justification to the methodology applied in the research process. The chapter described the population size and characteristics, it further outlined the research design and the process of gathering data through in-depth- interviews. The chapter explained the approach that was undertaken in analysing the qualitative information from the interviews and ethical considerations were further examined. Chapter 5 will highlight the findings of the study.

Chapter 5

5.1 Introduction

In Chapter 4, the foundation for selecting a qualitative methodology for understanding the effects of business incubators were clarified and discussed. This selection enabled participants (the incubatees and incubation managers) to be purposively sampled (see Chapter 4 for their specific characteristics), so that the effects of business incubation's post-incubation stages could be explored. In this chapter, the research findings relating to the objectives of exploring if the influence and resources provided during business incubation processes and services enabled entrepreneurs to develop and grow their businesses in the market post-incubation are presented. The contextual patterns of Gauteng province–based post-incubatees and incubation practitioners (managers, mentors and policy developers) relating to the influence of the business incubation process on entrepreneurial performance and growth post-incubation are identified. To this end, the outlines of data are discussed, along with relevant emerging issues that were discovered by the researcher. An analysis of the interviews and focus group data revealed a comprehension of business incubation patterns and subsequent business incubation trends and shortfalls that require future attention were identified.

Interview quotes were used throughout the chapter to support the findings presented and to provide further transparency for the interpretations made; and to give the reader a window into the voices of the participants and a feel for how they expressed themselves. To ensure confidentiality, each participant had been identified with a fictitious given name or pseudonym. Individual incubators are also anonymised using the labels Incubator A, B or C consistently throughout. Where quotations of the researcher's ethnographic field notes are referred to, this is evidently indicated in the text. This was followed by deliberations on data analysis. The researcher reviews methods in data analysis such as grounded theory and Colaizzi's (1978) seven-step approach to data analysis. Finally, data were coded and analysed using ATLAS.ti and manual coding. The researcher noticed a limitation in the number of codes generated using ATLAS.ti, thus the researcher expanded on the codes generated by further conducting manual coding.

To explore whether incubators equip incubatees with sufficient resources for continued existence in the market post-incubation, the main themes that emerged from the data analysis process are

shown in Table 5.1. In grouping the themes that emerged, the researcher grouped those using key words as presented in the two research theories presented in the study which are business incubation theory and the entrepreneurial value creation theory. The most discussed theme emerging from interviews with post-incubatees is (i) monitoring and business assistance intensity. This theme was linked to question 1, 2 and 3 of the interviews. This theme was followed by (ii) entrepreneurial opportunity, where the post-incubatees mostly spoke about availability of resources and opportunities. The third theme was (iii) entrepreneurial competence, where most post-incubatees indicated their knowledge of markets and the barriers experienced. The fourth identified theme was (iv) entrepreneurial reward, post-incubatees indicated their growth, decline and survival methods.

Table 5.1 shows an example of how data were coded for Participant 3's transcript using both ATLAS.ti and manual coding. An example is shown of how the theme of monitoring and business assistance emerged and it was followed by the development of sub-themes which were (i) Processes, (ii) Mentoring and coaching and (iii) Business processes. The theme and sub-themes were developed based on the linkage between the interview questions, responses and key words (codes) that emerged. The same pattern was followed in the coding process for all other participants.

Table: 5.1. Coding process example using both the ATLAS.ti and manual coding (Source: Compiled by researcher)

Main Theme	**Sub-Theme**	**Coding**	**Participant 3 Comments - Quotations**
Monitoring and Business Assistance Intensity (Linked to Questions 1, 2 and 3)	Processes	▪ Skill development,	*What was good was that a psychometric test was done and then that psychometric test helped me to understand myself a little bit. Participant 3*
	Mentoring and coaching	▪ Business Support ▪ Business incubators ▪ Business Support: Practical teaching ▪ Market access ▪ Service provider	*So, I also think the incubation programme is good for people who are just starting off in business. By the time I got there, I was already 5 years old in business. Participant 3* *Coaching and mentoring lacked an assessment of the business and needs thereof. Participant 3*

			They needed to create a transformation, as I was already in business. The coaching needed to assist with the creation of new markets. Participant 3 *Yes, we did receive training on handling business finances, how to manage the credits and debits of the company. Participant 3* *So, they kept on changing mentors and coaches.* *So, you don't know who you are dealing with and every now and then someone's calling you and, you don't know who they are. Participant 3*
	Business Services	▪ Compliance ▪ Licences ▪ Registration accounting services ▪ Strategy ▪ Market research ▪ Business mapping	*So, like when we had those online meetings, and SARS would come in and explain stuff and provide the necessary tools for understanding tax matters. The business was ISO 9001 accredited. Participant 3* *If you are not going to get big opportunities, you are always going to have a small or a low CIDB grading.* *But the other thing is, we had an accountant, so the accountant was putting together all of that. Participant 3*

In all the cases consent was given and the researcher was able to collect additional contextual data for each incubatee that had left or graduated from an incubator that they were previously placed with (referred to as post-incubatee going forward) using documents and information from the incubation centre. This was used to discuss their industries and years of operation. The demographic data collection templates from business incubation centres enabled the researcher to design a demographic data collection template to consolidate background details of participants.

Table 5.2 indicates a summary of the demographic data collection template and data from the business incubation centre. On average, participants had been in a business incubation programme for more than 12 months; when they were interviewed, they had already left or graduated from the programme. The demographic data from the post-incubatees interviews indicated that those who have exited the programme for over three years had diversified from their initial business concepts or businesses for which they were incubated. This resulted from commercial challenges and difficulties associated with the economic changes brought by the Covid-19 pandemic. Moreover, post-incubatees in the green-energy and information, communication, and technology industries successfully obtained various forms of funding and access to offshore markets and have continued to grow and develop the businesses for which they were incubated.

According to Braun and Clarke (2019) data saturation is the point in data collection and analysis when new information produces little or no change to the codebook, with changes consisting of the addition of new codes and refinements of code definitions; and as thematic exhaustion, the point at which no new themes emerge from data. The researcher had set out to interview a total of 12 post-incubatees, however saturation was researched at the 10th interview where participants were providing data that were already highlighted by most of the participants.

Table 5.2 provides an overview of interview participants; they were from two incubation institutions. Business Incubator A has three sites in the southern parts of the Gauteng province providing business incubation services in the construction, mining and engineering industries. Business Incubator B is a technology and innovation hub which houses five incubators in the research, bio economy, green-economy, digital and information and communication technology (ICT) industries. The hub is located on the northern part of the Gauteng province and accommodates incubatees residing in Gauteng.

Table 5.2: Demographic Data of Post- Incubatees Interviewed (Source: Researcher's Compilation)

Participant	**Incubation Programme**	**Industry**	**Years post-incubation**
01	Programme A	Mining and Construction	5 years
02	Programme A	Engineering Services	3 years
03	Programme A	Engineering Services and Consulting	3 years
04	Programme B	ICT	4 years

05	Programme A	Construction and Manufacturing	2 years
06	Programme B	Green-Energy	4 years
07	Programme A	Construction	3 years
08	Programme B	Manufacturing	3 Years
09	Programme B	Manufacturing	3 years
10	Programme A	Construction	3 years

5.2 Interviews with Post-Incubatees

Table 5.2 gave a depiction of the participants who were interviewed. Interviews were conducted using Microsoft Teams (MS Teams). In conducting interviews, confidentiality was guaranteed prior to the interview process. The participants were sent the information leaflet prior to the interview meeting. These were sent by the incubation administrator to participants rather than directly by the researcher.

The interviews' durations ranged from 50 to 90 minutes. Each interview was recorded and transcribed verbatim. Where additional data or explanations were required, the interviewees were contacted again. Questions were designed to understand the biography of the post-incubatees' business ideas over time, starting with questions about the nature of the business and ending with plans for the future. The aim was to capture, as accurately as possible, the experiences of post-incubatees were obtained by exploring – the entrepreneurial value creation theory process and how the business incubation theory process shaped incubatees and their businesses. The ten (10) interviews with post-incubatees captured rich data about the incubation process. To bring these narratives to life and to discover the incubation experience in detail, a two-stage analysis was carried out. The aim of the first stage was to identify key stages and activities during the incubation period and post-incubation. The second stage was to identify the entrepreneurial cognitive approach of each post-incubatee. However, saturation was researched at ten interviews.

Following the qualitative data received from the interviews with post-incubatees, four main themes emerged that provided detailed insights. The themes identified are: (a) monitoring and business assistance intensity, (b) entrepreneurial opportunity, (c) entrepreneurial competence and (d) entrepreneurial reward. Figure 5.1 displays the main themes and sub-themes derived from the qualitative results after coding and analysing. The themes identified and developed in this study have been aligned to the research questions as well as the theoretical constructs.

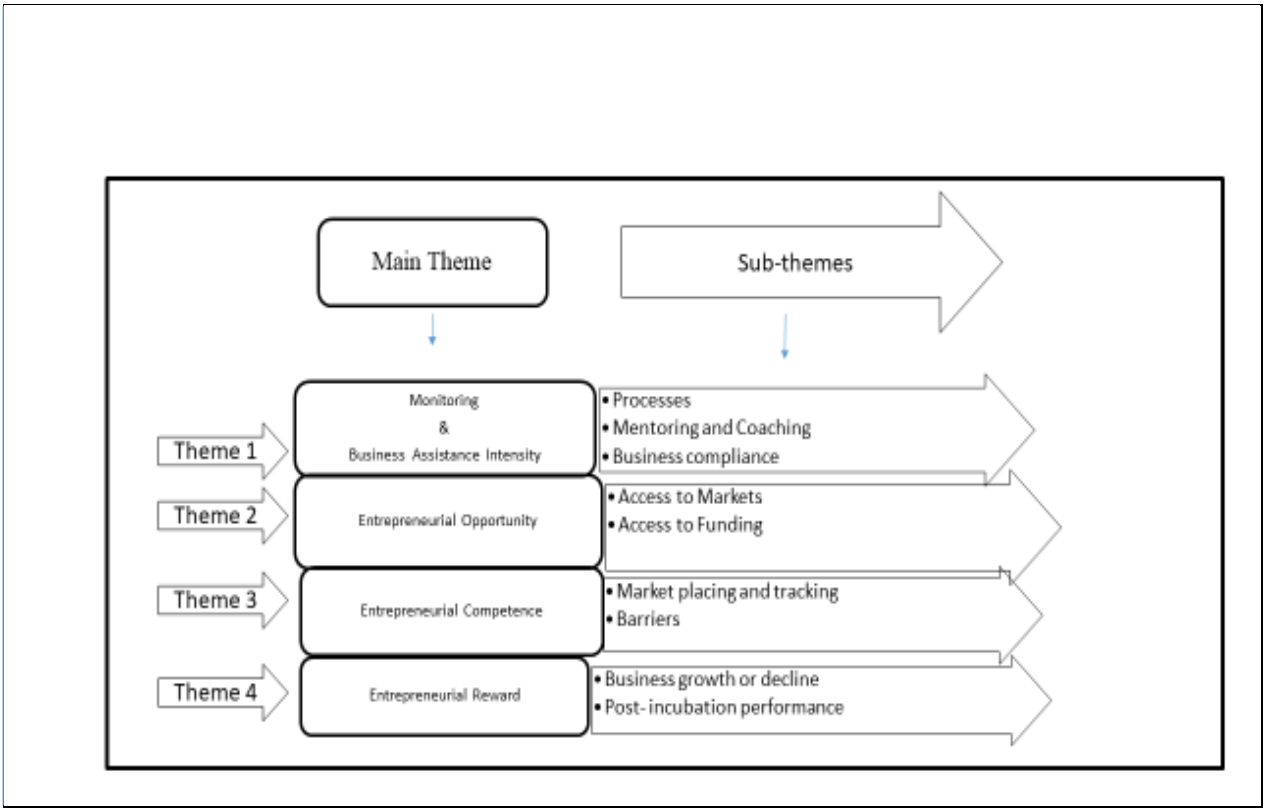

Figure 5.1: Main and sub-themes from interview data (Source: compiled by the researcher)

The identified themes and their constructs are discussed as follows:

5.2.1 Theme 1: The Monitoring and business assistance intensity

According to Kemp (2013), monitoring and business assistance intensity (M&BAI), as per the theory of business incubation, refers to the degree to which the incubator observes and helps incubatees with the development of their businesses, including helping them to learn from low-cost failures and containing the cost of potential terminal failure. Monitoring and business assistance intensity is characterised by dimensions of time intensity of assistance provided, comprehensiveness of assistance provided and degree of quality of the assistance provided (Hackett & Dilts, 2009). This theme was more linked to question one of the interview questions and led to the generation of the following sub-themes: processes, mentoring and coaching and business compliance.

a) **Processes**

Processes refer to the development process that gives new businesses the right tools and knowledge they need to reach their goals and make the economy stronger. It's all about

teaching people about how to manage a business well and how to deal with any problems that may arise (Silva, Ghezzi, Aguiar, Cortimiglia & Caten, 2020). According to Slávik, Bednár and Misunova Hudáková (2021), establishing a start-up is characterised by high uncertainty and constant change. Understanding the initial processes and challenges is a key factor for success of their businesses. The key role is played by the personality of the founder, especially his proactive approach.

> *If the incubator is good it is going to plan properly and the incubator will see the success it wants in terms of the rollout and if they are interested in their incubatees, you will definitely see the benefits will be both ways – Participant 3*

> *But if you're a business that's already running, maybe there should be a way of identifying certain things that you need to work on for your business to prosper- Participant 4*

> *They should have categories for businesses, start-ups because they used to put us together with people that don't even have business experience – Participant 5*

> *You can't be putting me in the same industry with someone who does not understand the importance of having a website or aspects of growing a business. Business stages are different –Participant 2*

However, most of the post-incubatees highlighted that people join incubation programmes for various reasons and are at different stages of development. The participants indicated that a needs analysis is required as it was not completed in most cases. The participants indicated that the categories of business development should be defined and differentiated when signing on new incubatees. Some participants indicated that, when they joined the programme, they had some level of business experience and were placed in the workshops with people who had no form of business background. Participants indicated that if the process of needs analysis and differentiation in terms of the stages of development is well prepared, it can lead to the success of incubatees and the incubator itself.

> *They needed to create a transformation, as I was already in business. The coaching needed to teach us on how to create new markets – Participant 2*

Participant 3 indicated a different approach in the processes followed by the incubator when he joined the programme. A psychometric assessment was conducted to determine where he was regarding his business idea and his abilities to embark on this business. This process helped both the incubator and the incubatee to understand and to also do a needs analysis on the developmental requirements of the incubatee's business.

> *What was good was that a psychometric test was done and then that psychometric test helped me to understand myself a little bit better - Participant 3*

In the desire to have successful mentoring relationships, the matching process can become quite technical. Participants suggested that, once it is determined at what stage of growth a business is, it will be easier to assign a business development mentor. It is significant to offer both parties the opportunity to explore what is meant by mentoring before engaging. The success rate of businesses within business incubation institutions is also often persuaded by the standard and/or value of the mentorship they receive.

> *For me, incubation, it's not what I've expected. I need to be clear because, incubation was to take you from step one until your business gets to a higher level, meaning it should be something like grooming, mentoring and support - Participant 6*

> *So, if it's a mentor assigned to a mentee, then that person will know exactly what your business needs, what sort of funding you need, and at what stage your business is at - Participant 2*

> *That mentor will know because now they will say, OK, now you're growing your business, you've got more customers than it can serve. Obviously, you need more cash flow, or you need money to buy material. It will be a process. They will know it, then they will then assist you, but the mentoring process lacked that for me - Participant 5*

There were participants who indicated that they have been to other incubation programmes before with the hope of getting access to vast market opportunities offered by state. To the researcher, this indicated an element of serial incubation in pursuit of greater business opportunities or entrance into specific specialist markets.

If I were to be very honest and I was part of another incubation process. But didn't get the support to get into markets – Participant 6

That was the second business incubator. Then the third one. It was in the mining industry. And again, I left them because I saw the same pattern of having no drive to get the entrepreneurs into the market. So actually, Incubator A was the fourth incubation programme – Participant 2

b) **Mentoring and coaching**

Mentoring and coaching can be seen as opportunities to harness implicit and explicit learning through experiences and interactions (Hussey & Campbell-Meier, 2021). Mentoring and coaching are related concepts focused on professional development with different focuses and intent (Hussey & Campbell-Meier, 2020). A mentor plays an important role in the entrepreneurial development of an individual. He guides entrepreneurs from conception of business to product development and business growth (Memon, Rozan, Ismail, Uddin & Daud, 2015; Sharma, 2021).

Post-incubatees highlighted the need for skilled mentors. Some felt that the mentoring and coaching should be conducted by individuals who have experience in operating businesses and should understand the challenges of running a business. There were participants who felt that the mentoring and coaching processes were too generic and didn't really focus on their business needs.

There, I felt that people that should be running these programmes should be people that also understand the pain of running a business - Participant 2

They needed to create a transformation, as I was already in business. The coaching needed to teach me more on the creation of new markets – Participant 3

However, post-incubatees indicated that they did receive mentoring on various aspects of developing and running a business. The coaching was mainly focused on finance, financial principles, and business plan development processes.

Yes, we did receive training on handling business finances, how to manage the credits and debits of the company- participant 3

There are so many things that they have helped with, their business development process and also assisted to develop my business plan, these I achieved because of Incubation B and also the workshops, financial workshop, market research – participant 4

It did, indirectly because of I was not new in the business industry. The coaching assisted me in terms of, you know, putting discipline in myself, specifically that I needed to do certain things differently. For example, when it comes to finances I was reckless to be honest, because there was no difference between my personal finances and business finances and there were deep implications - Participant 6

So, the assistance I got was actually incidental because they actually assisted me in terms of the consulting business. Bookkeeping training actually assisted my business to progress – Participant 6

The incubator paid for our post –graduate certificate. We attended classes at the University of Pretoria. So unfortunately, are not doing it anymore, but they should, because we had finance, marketing, business modelling, absolutely everything and at the end of it, we got a diploma from the University of Pretoria, which was absolutely fantastic for the company's profile – Participant 7

It did help because my mentor conducted a lot of workshops and networking sessions – Participant 4

Those lessons are very important for an entrepreneur because some people are not well educated on business aspects. But when you get those lessons, they go a long way - Participant 4

Only one third of the post-incubatees indicated that specialised industry mentoring and coaching was provided and was mainly indicated by incubatees from Incubation B.

During the prototype phase that was the time I met Incubation B and, they incubated me and then they helped with workshops and space and the development of prototype – Participant 4

The qualities of a mentor mentioned are subjective in nature and every protégé's perception about these qualities is different (Memon *et al.,* 2015). To form a good dyadic structure of mentor–protégé relationship, a protégé should find a mentor who matches with the qualities he or she is looking for (Memon *et al.,* 2015). In the answering of questions one and two, the mentor-mentee relationship became a focal point of business growth. Post-incubatees from incubation B, where a single or a specialist-coaching approach was applied, showed a high level of satisfaction.

> *I had to be reintroduced into markets and I did feel that although the funding is amasing and the mentoring is amasing, I mean our mentor and co-mentor they got my business case up to date on all the things I didn't know cause – Participant 9*

> *The mentor was very good, like when I had to meet with potential clients came he came with me. So that kind of support was amasing. You know, he was hands-on - Participant 9*

> *And it's definitely worth it being incubatees and having a mentor. It really opens a lot of doors for you and makes you think about things that you did not think about and through being mentored through incubator B – Participant 7*

> *He was mentoring, you know, he's is a very good engineer. He understood the technology and he helped us quite a lot. The second mentor was more on your business modelling and finance and all of that type of thing. And she is quite big in the green energy field – Participant 7*

Post-incubatees from incubation programme A, where a multi-mentor approach was utilised indicated that a multi-mentor approach or the inconsistency in the provision of coaches and mentors did little or nothing in growing their businesses.

> *It also goes back to what I've said initially to say, if it's a one-on-one mentoring and coaching its better because you find that if you're in a group they wouldn't even know what type of funding you need or the type of assistance required. So, they kept on changing mentors and coaches. So, you don't know who you are dealing with– Participant 3*

> *What I think will actually benefit businesses is if those business are actually given one mentor and there should be one approach. If I have one mentor, then if there*

are any questions, I will then talk to this person and then if there's any information I want, I can talk to this mentor. So that person also knows that he or she is actually monitoring your business. But now I think, they're just using a blanket approach – Participant 5

Mentoring can be described as a dyadic communication relationship consisting of verbal and non-verbal behaviours intended to offer or ask for help. When engaged in a dyadic mentoring relationship, mentors elaborate and convey supportive messages depicted as specific lines of communicative behaviour enacted by one party with the intent of benefiting or helping another (Auzina, Grinberga-Zalite, Cirule, Pilvere & Rivza, 2020). In the mentor and mentee relationship, formation and communication are key factors, where post-incubatees indicated that, in cases where there are multiple mentors, communication became a major challenge.

So, also maybe the issue of communication was never quite correct, which is one of the things that, yeah, communication was a major problem. Assigned mentors are not always available when you need them - Participant 5

The relationship should be based on the status of where you are as an incubatee. For me, I would say also this again; the incubator must understand the needs and the status of the business to be incubated. I needed help with finances and business modelling – Participant 3

c) **Business compliance**

Business compliance refers to compliance by management that addresses the assurance that a given enterprise is in accordance with a set of regulatory guidelines (Efunniyi, Abhulimen, Obiki-Osafiele, Osundare, Agu & Adeniran, 2024). The majority of post-incubatees reflected on efforts that were undertaken to ensure industry compliance. Post-incubatees were from industries such as construction, mining and supplying of mining equipment as well as high-tech.

But I also gained an understanding of industry compliance and the use of finances - Participant 2

So, like when we had those online meetings, and SARS would come in and explain processes and provide the necessary tools for understanding tax matters – Participant 3

The business was ISO 9001 accredited. So, if you're not going to get big opportunities, you always going to have a small or a low CIDB grading – Participant 3

I have been taught legal documents how to draft contracts – Participant 2
But other thing is, they provided an accountant, so the accountant was putting together all our documents and finances – Participant 3

I actually benefited from like for instance, when they organised the SARS services and then I would be interested – Participant 7

For our business, because we used white flannel and not white cotton, it started to give us challenges after a while, and I tried to change it to cotton so we did get our SABS approval and although everything else follows the guidelines and we ticked all those boxes – Participant 9

We even registered with CIDB, what happens is you are graded based on the kind of business or contract you get – Participant 3

Figure 5.2 presents a summary of Theme 1 which is monitoring and business assistance intensity of the interviews with post-incubatees. Figure 5.2 illustrates that a need for standardised processes is key in the on-boarding of both incubatees and mentors. A needs analysis process is required and should be standardised. When there is a clear match with the selection of mentors, mentees can develop a new hierarchy of ideas. This was seen in the interviews where a hand-holding process was undertaken to introduce incubatees to potential markets. This led to a clearer business visualisation and the ability to recognise new opportunities. However, post-incubatees indicated that generic approaches in the mentoring process can be a limiting factor as they operate in different and highly technical industries. Therefore, the ability for an incubator to provide experienced and available mentors and coaches is of significant importance, as the mentor helps incubatees to identify activities that will help them to achieve their goals faster. In so doing, the incubatees refine their business' vision. The liaison between the mentor and mentee is built on trust (Baltov, Bartkutė-Norkūnienė, Bartuševičienė, Glińska, Jecheva, Jodienė, Kotāne, Marzano, Mietule, Mineva &

Murinska, 2020). The multi-mentor approach might not always work. In South Africa, business compliance is key and if not well adhered to this can lead to business failure or challenges of red tape, as indicated under the business compliance section. Most post-incubatees showed appreciation in the level of support provided by incubators.

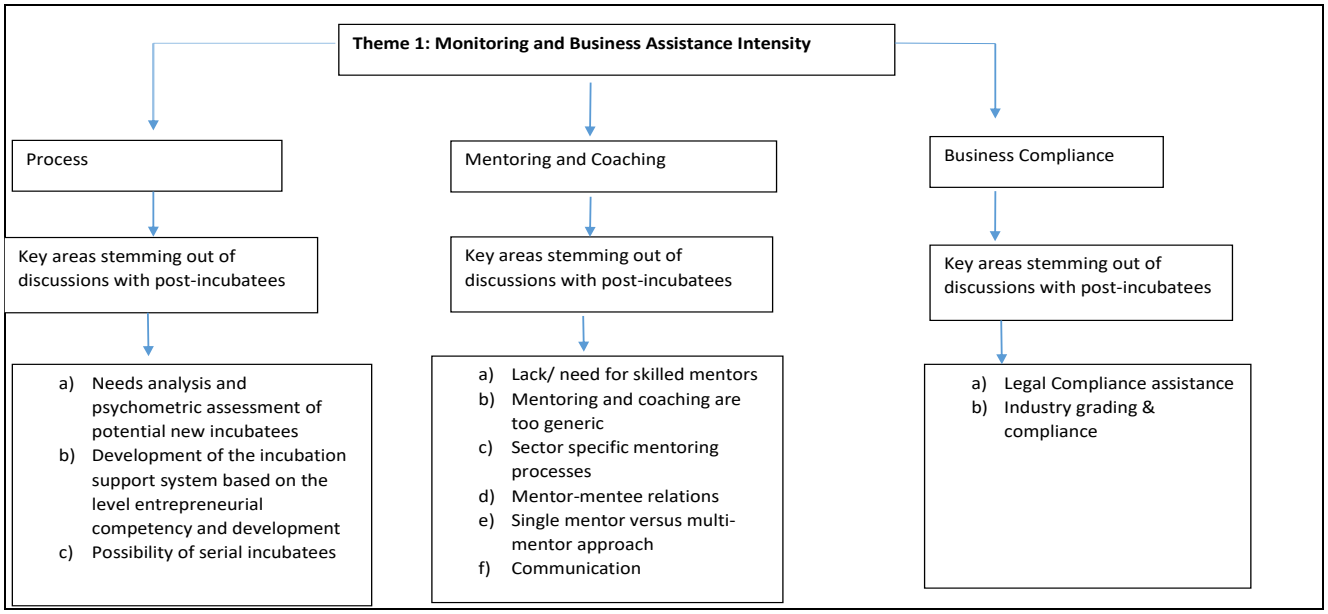

Figure 5.2: Theme 1 – Monitoring and Business Assistance Intensity (Source: Researcher's Compilation)

5.2.2 Theme 2 – Entrepreneurial opportunity

Meckel (2014, cited in Shahid, Hossain, Shahid & Anwar 2023), suggest that entrepreneurial opportunities are opportunities to bring into existence new and future goods, services, raw materials and organising methods that allow outputs to be sold at more than their cost of production. This theme led to the development of sub-themes such as access to markets and access to funding. This theme and sub-themes are mainly linked to questions 2, 3 and 4. The sub-themes discovered are discussed next.

a) **Access to markets and networks**

Networks, internal and external, help tenants to access important contacts and gain critical industry know-how. Entrepreneurs often explore business opportunities beyond their existing networks in search for new connections, seeking to acquire relevant resources. By providing access to such networks, incubators directly and indirectly facilitate tenants' technological and business development. Networks embed social capital that reduces the time and costs

involved in accessing valuable information, partnerships and markets. Incubator networks are generally based on informal arrangements. Incubator managers may encourage creation and growth of networks by offering interactive activities such as training workshops, conferences, marketing and networking events for the tenants (Kwazu, 2022). Participant 5 indicated that, although she received training regarding other aspects of her business, the incubation process in terms of creating access to markets and networks proved to be valueless for her.

> *But in terms of getting into the market, Incubator A has done zilch for me to get into the market - Participant 5*

Some post-incubatees indicated that they have managed to source some valuable market opportunities and networks themselves without the assistance of the incubator.

> W*e do have some market opportunities, but none of that came by virtue of the incubation programme that was based on past relationships and you know, referrals and all of those things - Participant 3*

The cost of networking with the hope of getting clients can be very expensive and Participants 1, 3 and 7 spoke about the opportunities that were provided by incubators to market their goods and services.

> *And at these exhibitions was a matter of, okay, come with all of your stuff. Our business is more on training therefore we didn't have products to exhibit – Participant 3*

> *In places like the incubator B, they would have a big stand and have little stalls for the incubatees to exhibit, paid by the incubator. None of us can afford exhibition fees – Participant 7*

> *Well, the fact that they were able to advise me with the conferences and the networking as well, I would say in a way they did assist – Participant 1*

In the case of Participant 7, the interventions provided by the incubator were not related to his type of business and industry.

So, unfortunately, the access to markets that they had, it had nothing to do with consulting, but it had to do with like for instance, people who are in mining and construction, you know such things - Participant 7

Some post-incubatees, although they did not receive direct access to markets and networks, saw being in an incubator space as an opportunity to market themselves with institutions associated with or linked to the incubator.

Mostly I did the marketing myself within those clients that were close like Transnet and Eskom. That was my ticket to the market because being vendor registered gives you access to jobs. So, being on the portal gives you access to all the opportunities of all the prime mine branches that are under select. So, because I already have a vendor number then it's easier to register and you get access to the jobs all over the country - Participant 1

Participant 7 indicated that internal networks have proven to be viable. He was able to get business linkages through his interactions with other incubatees which has also created a platform for collaboration.

The networking that actually assisted was internal because then I would network with other incubatees and then I would actually talk to them privately, but not like when we were a part of facilitated processes - Participant 7

Participant 9 indicated the initiatives undertaken by the incubator in advertising and getting her product commercialised.

My mentor got us a meeting with Spar and Dischem - Participant 9

There is growing evidence that the performance of incubatees is significantly improved by networking, whether it is through internal networks with other incubates or the actual sourcing of contracts with big commercial businesses. The interviews indicated the importance of business networks and that there is still a gap of how to connect and apply business networks to the various stages of a business incubation process. The need to link incubatees with existing stakeholders and ensuring that the market linkage starts with them is very important, which might also reduce the trend of incubatees moving from one incubator to another in pursuit of market opportunities.

b) **Access to funding**

Harel, Schwartz and Kaufmann (2020) argue that small businesses suffer from financial constraints that hamper their ability to grow, that they have less access to formal external sources of funding compared to larger companies and that they rely on informal sources such as family and friends. Post-incubatees from Incubator B indicated that they have received initial funding from the institution to kick-start their innovations and in some cases the funding was to develop prototypes. However, in some cases, the funding was lacking in doing the actual production and access to markets.

> *I think the incubation was almost for three years and then after that I got the funding 2021.We managed to pull in some funders, but we were still testing the market and doing the research and everything. The funding was very important for the platform to be developed fully so that we can do all the functionalities that we're supposed to incorporate in the platform. The incubator provided the funding in the initial launching stage – Participant 4*

According to Harel, Schwartz and Kaufmann (2020), it is important to understand the dynamics of innovation and funding difficulties in small businesses in order to adapt and facilitate government programmes to promote innovation for this industry and contribute to the growth of the entire economy (Harel, Schwartz & Kaufmann, 2020). Participant 7 indicated the lack of understanding by the incubator in funding her business innovation after the development of a prototype was finalised.

> *We've had funding from the incubator, but it was small. One of the bad things about incubator B was, not understanding the technology and the people who were adjudicators on the panel did not understanding what they were looking at, we applied for grant funding for a million Rand. We were given R500,000 to develop this machine, which from 2013 to now has costs in the excess of 13 million – Participant 7*

However, participants from incubator A indicated that they have not received any form of funding and some also indicated that they had to divert their original business ideas into other industries where they could generate some form of income.

But the business that I wanted to do didn't actually materialise due to lack of funds for raw material then I ventured into a different industry- Participant 6

In creating a solution-driven approach, post-incubatees indicated that business incubators should create internal opportunities for incubated businesses to be part of their supply chain.

There must be an opportunity for us to invoice, meaning that those guys must give us work. And when I teach you how to read financial statements, I must make sure that you get the work so you can invoice and can be able to read the financial statements – Participant 2

What the entrepreneurs need is just the business. We do not need you to give us money. Incubators should give us the business then we will make money – Participant 6

You know, the funding is great and the business help is great, but one needs to sell and I think that's where we were fallen short – Participant 9

Some participants have indicated that they are sourcing alternative funding to boost their current business operations.

I am looking into it because crowdfunding can actually sponsor sanitary pads for the girls in need, and I know it's not big in South Africa, but overseas it's quite big – Participant 9

After the business has passed through the early stage, it requires a further injection of capital to fund the growth of its manufacturing and distribution capacity. However, its reliance on intangible assets with uncertain cash flows still affects the access to debt financing. Moreover, low profitability and a short track record make it unsuitable to raise equity through public listing (Vasilescu, 2014; Zambon, Marzo, Girella, Abela & D'albore, 2020). Post-incubatees indicated their frustration in having received the necessary training but still having insufficient financial resources.

You know they can support you to do this and that, comply with this and that. But since the business is a start-up and you don't have money, believe me, banks will not consider you. That's my experience with the incubator – Participant 6

They should consider the financial part of an entrepreneur as the most important thing, for some entrepreneurs are very experienced and they're very good in what they're doing — Participant 4

Your goal should be that at the end of the day, this person must have benefited financially in terms of the growth of their business – Participant 2

All participants interviewed indicated challenges with the sourcing of funding to penetrate the market. Funding required by post-incubatees is mainly for capital equipment. Some post-incubatees also indicated that they received some form of funding for their initial prototypes and innovations, but the funding was limited to carrying out the commercialisation of their goods and services. The beauty of this limitation is that all post-incubatees interviewed are still in business and have found ways of proceeding with their businesses despite this limitation. This actually indicates that they possess an entrepreneurial drive.

Some post–incubatees have diverted from their original business ideas into industries that require less funding, some have reduced their innovation project size to accommodate this limitation. Tapping into other funding alternatives such as crowdfunding can also be beneficial. All post-incubatees interviewed proposed some type of solution to their limitation on funding. Given that these incubators are formed and governed by a board of directors comprising of representatives from larger corporates, a funding and access market approach has to be agreed upon at the on-boarding stage of incubatees. This can the factored in as part of the contractual agreement between the incubator and incubatee.

Figure 5.3 illustrates a summary of discussions about the entrepreneurial opportunity theme. Key aspects stemming out of discussions with post incubatees relates to access to markets indicating a need or a gap by incubators to assist in the provision of markets and networks that are aligned to the needs of the incubatee’s business. The second sub-theme that emerged was the funding aspect of every business; post-incubatees indicated the importance of initial funding and the provision of a solutions-based approach in meeting the financial needs of their business while still being incubated.

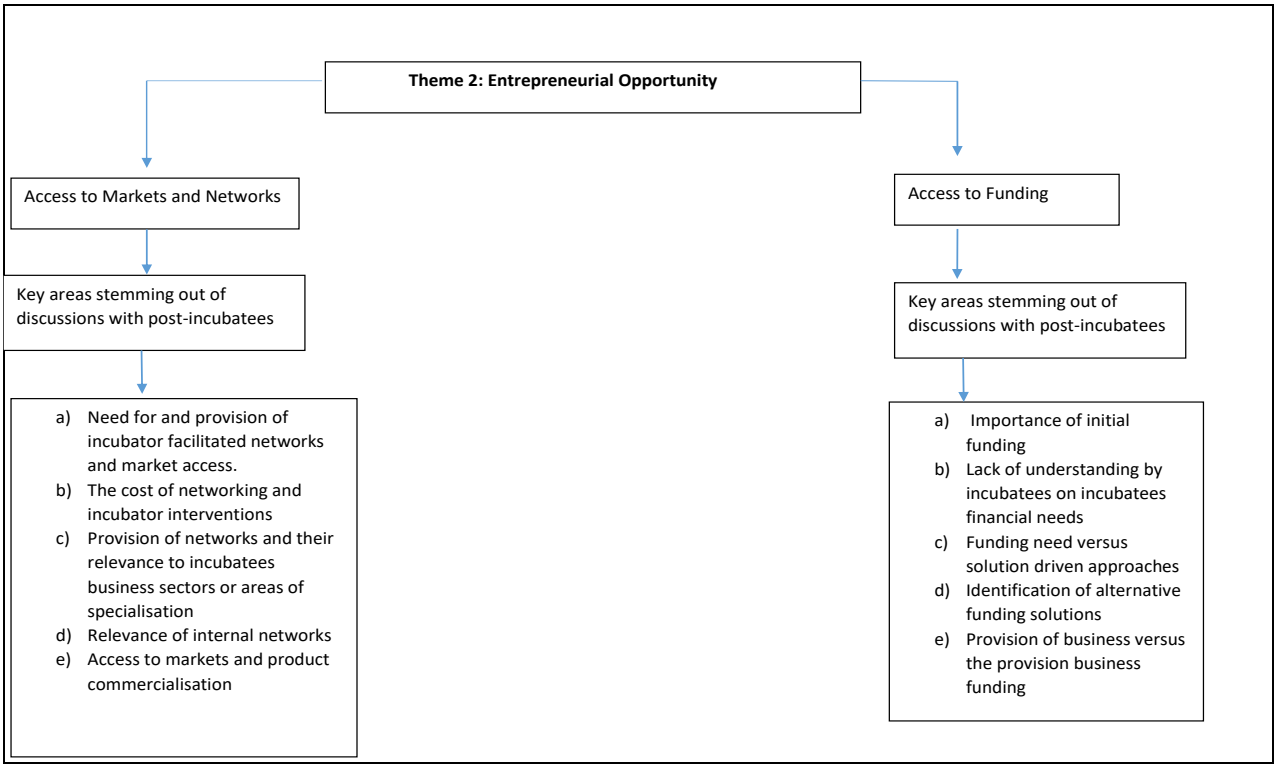

Figure 5.3: Theme 2 – Entrepreneurial Opportunity (Source: Researcher's Compilation)

5.2.3 Theme 3: Entrepreneurial Competence

Research suggests that competence indicates the ability to effectively interact with the environment (Mulang, 2021). This presupposes the ability to produce desired, and avoid undesired, events and thus emphasises the importance of human agency. Competence encompasses knowledge, skills and abilities (Sass, Boeve-de Pauw, Olsson, Gericke, De Maeyer & Van Petegem, 2020). In an entrepreneurship context, the knowledge, skills and abilities relate to building the capacity to successfully create new means-ends frameworks (Lanivich, Smith, Levasseur, Pidduck, Busenitz & Tang, 2022). More specifically, gaining entrepreneurial competence requires entrepreneurs to attain the ability to identify and pursue new and unique opportunities and the ability to acquire and utilise the resources needed to be able to do so successfully (Pennetta, Anglani & Mathews, 2024). This theme was linked to question 4. This theme led to the development of the monitoring and evaluation of business performance, market placing and barriers as sub-themes.

a) **Monitoring and evaluation**

According to Matsiliza (2018), monitoring involves tracking the progress of operational plans whether they are achieved or not. Monitoring does not only involve the recording of events

and statistics, but also the accountability of those who are involved in the implementation of business development plans (Matsiliza, 2018). This continuous monitoring assist managers in providing useful information that is needed for evaluation. Instead of focusing on results, monitoring focuses on outcomes. The total number of daily outcomes contributes towards the assessment of end-results. The advantage of monitoring is that it provides feedback during intervals, which can be used as a yardstick to measure the desired corrections for improving business performance. Evaluation is a systematic assessment of the value or worth of a product or outcome. Evaluation is transdisciplinary and is tightly linked to business development monitoring. The information gathered during monitoring thus greatly assists in pointing out areas of strengths and weaknesses in business performance (Matsiliza, 2018). Participant 2, indicated a continuation of the relationship he had with his previous mentor as beneficial.

> *I am now working on the system issue with the previous mentor – Participant 2*

Other post-incubatees indicated that they are using systems such SAGE to monitor the performance of their businesses.

> *I have a sage accounting system in place that sort of identifies where the funds are coming, but I do it on my own – Participant 9*

> *I use a sage accounting system, it's about R200 – R300 per month. We had sage accounting training as part of the incubation programme but now I also have an accountant – Participant 8*

However, most post-incubatees indicated that they do not have specialised systems in place to monitor the growth and performance of their businesses, but they rely on their financial statements and number of jobs they create to provide an indication of their progress.

> *The income that we generate that shows that we are growing, or we are on the same level or you're going down. I use financial statements mostly because I cannot use the number of jobs created as they fluctuate and are not permanent. There is no special system, it's just the bank statement – Participant 4*

> *I use financial statements and also, I use number of customers, new customers that I actually get. There is no special software – Participant 7*

Financial statements are the only thing and management accounts, such as invoices. But I also check the number of users on our business platform – Participant 5

No, we do not have a system that shows that we're doing well or not as yet but in the future, we definitely will have to have something like that – Participant 8

There is a gap in the monitoring of business performance by post incubatees; the majority of them rely on their monthly bank statements to evaluate their business growth and trends. Relying on monthly bank statements might not be a true reflection of growth as other measures such as an increase in the number of employees, the domestic market and exports can be other measures applied in tracking the performance of a business. The use of monthly bank statements can be challenging in determining the survival rate of businesses after exiting an incubation programme.

b) **Market Positioning**

Market positioning refers to the process of forming a unique identity and image for a product or brand in the minds of target consumers, relative to its competitors. It entails identifying and emphasising the principal advantages and characteristics that differentiate the product from others in the market, with the goal of creating a distinct and favourable perception among consumers (Garachkovska, Sytnyk, Fayvishenko, Taranskiy, Afanasieva & Prosianyk, 2021). Participants 5, 8 and 9 indicated that marketing and positioning their companies on international platforms will ensure growth and open new markets. They have been applying this strategy to ensure that there is continuous sustainability and growth outside the support of an incubation programme. In the case of Participant 8, they have indicated that the business venture has even diversified taking advantage of the growing needs in the green-energy space.

Our business is a social platform enterprise and is a solution to help those businesses to grow and to market their products and to advertise themselves on the global platform on a daily basis - Participant 5

So, we are targeting global clients, so that is why we're not too focused only on locals in such way that when you go to our page now, most of the companies that are there, are companies that are coming from overseas - Participant 5

We have big things happening, in 2021, we signed up a business in Australia and a license for our business model to do the manufacturing of the core components. Where most of the IP is laying locally, we then license out the technology and the access to make the machine work like motors and pressure vessels and containers etcetera cabling and piping and all kinds of things like that is put together by the license holder - Participant 8

Other participants ensured their market positioning by utilising development and networking platforms in South Africa such as registering their offerings with ProudlySA and being vendor registered with South African state entities such as Transnet, Eskom, PRASA and Gibela.

I went into Gibela and registered as a vendor because I know I can be of good service to them, especially since Transnet Engineering is a little bit down and out because there's not much happening there. So that's my ticket to the market because being vendor registered can be good for business. There's a portal that we log into, we've got credentials for that – Participant 1

So, the portal has all the opportunities of all the prime mine branches that are under select. So, because I've already gotten a vendor number then it's easier to register and you get access to all the jobs all over the country – Participant 2

I have joined Proudly SA now, that has been a little helpful as well – Participant 9

I have registered with the IDC – Participant 4

Participants indicated that, to position their business, they had to change their strategy and develop their own unique brand. This was also seen in the strategy applied by Participant 9 who manufactures reusable sanitary wear for girls in rural areas and disabled people.

And you know, like for example our business was predominantly supplying and installing somebody else's product. But what I've thought of doing is, I've started making my own products, as I used to supply automotive valves. But that stuff is made in London, but based on my experience, what I've seen is you've got no power if you are not making what you are selling. If you're selling somebody else's things, you've got no power. So now I've started making steel tables. What I've seen is that we need to create our own market - Participant 3

> *I was working with disabled people and so I had to manufacture the whole range comfortable sanitary wear based on their different stages. I think that's quite important – Participant 9*

Another positioning element that participants indicated was that the business needs to be advertised on social media platforms, that they are the future and that clients regard them as a simple and effective way for buying goods and services.

> *If a brand is not on all social in the near future, it's not going to be considered a good brand. So, for people to verify good brand, they must find it on all social platforms in the future – So, it's quite a huge international online platform and many opportunities are available – Participant 5*

The majority of the post-incubatees interviewed indicated that they had occasionally received access to national platforms where they were able to exhibit their product and services. Post-incubatees have indicated that, in ensuring that their products and services are known, they advertise their services on social media pages and relevant media platforms. Living in a world where technology is highly advanced, there is the introduction of 4IR; constant product and/or service development is key, and this was indicated by post-incubatees. Figure 5.4 indicates the market positioning elements of all post-incubatees interviewed. They are well positioned in the market. Despite all the challenges indicated, some of them have access to international markets to either export products or provide services internationally.

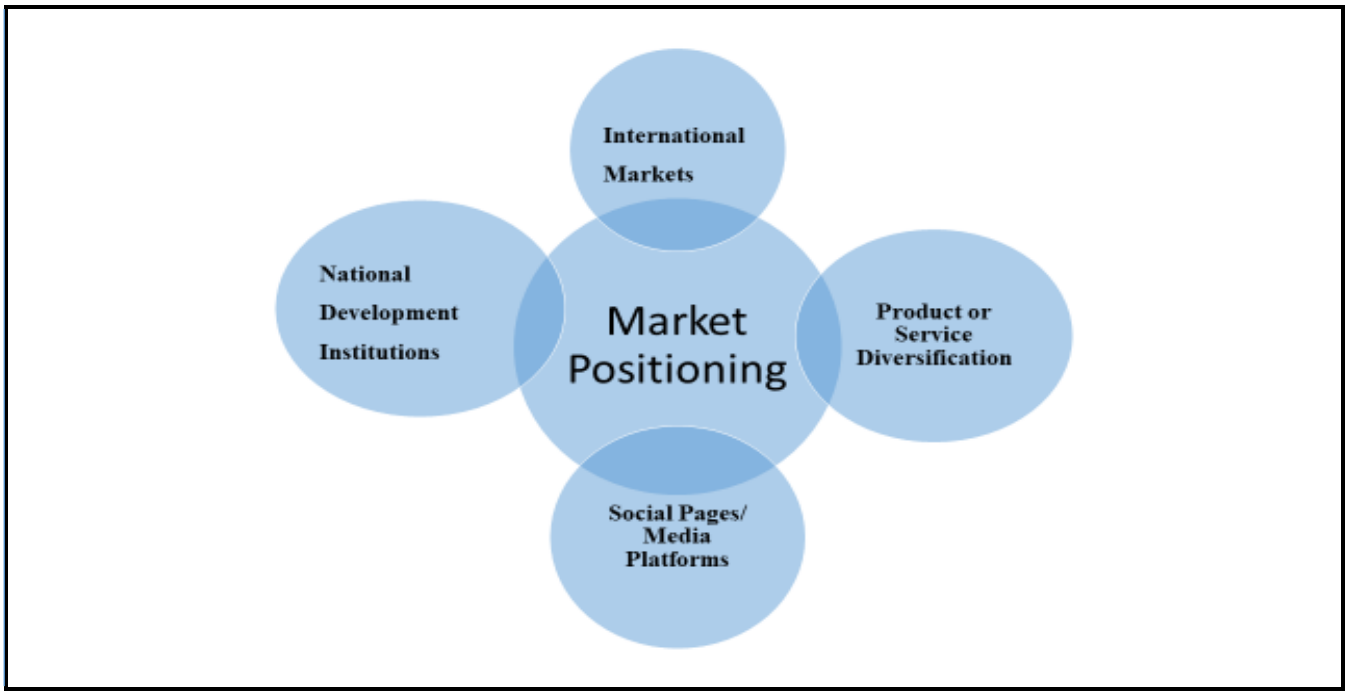

Figure 5.4: Market Positioning Demonstrated by Post- Incubatees (Source: Researcher's Compilation)

5.2.3 Barriers

Khanin, Rosenfield, Mahto and Singhal (2022) describe barriers to entrepreneurship as circumstances that prevent opportunity realisation and/or opportunity pursuit. However, in responding to question 4, post-incubatees highlighted the challenges they encounter in the market without the protection of mentors and coaches from the incubation programme. These challenges included competition, the domination of big or multinational companies, the lack of inclusion in laws to set equity and equality (B-BBEE) and the high costs of registering and maintaining patents.

> *Competition and the businesses that are not adapting to the online world, they're in the verge of closing down – Participant 4*

> *This market doesn't want us to do engineering work, as it currently exists, it is dominated by rich companies and they've been doing this business for years and they are going to continue to do this for years because they are still in control of it. So, we need to look at other places, you know, other markets – Participant 3*

> *Because other social media platforms are only benefiting those who can use them properly and things like that, they don't benefit a normal person - Participant 5*

> *The business is now 7 years old, and I'm telling you now, all of these multinational companies are talking nonsense. They don't want to help us. They don't want to allow us in, even if they allow us in, they give us small little crumbs and they also look at you with a magnifying glass, you know, looking for your fault. – Participant 3*

All participants mentioned the lack of capital as their biggest barrier. Participants indicated that financial institutions have created a red tape in approving funding for small businesses.

> *Importantly some of us we don't we have permanent employees precisely because of lack of financial sustainability – Participant 4*

> *The contracts and short-term jobs that we bid for they don't come as often as you would want or as frequent as you would want. So, at times you, will sit for, say, six months, there's no big job, just a small job just to push and flow. But when you get a bigger project then you struggle with a capital. – Participant 7*

> *There are red tapes when you need help with capital – Participant 1*

> *Every year we have to renew patents, and it costs more. I need close to R500,000 to service those machines and to keep them alive for another year – Participant 8*

> *But I think they need to start with funding manufacturing. Perhaps if they could even offer like a small manufacturing place. – Participant 9*

Post-incubatees have indicated their ability to accommodate current barriers experienced to ensure that there is competence in running their own businesses. There are many costs associated with running a business, remaining compliant and the red tape relating to running a business in South Africa. Participants have shown their resilience in keeping their businesses running; indicating a high level of entrepreneurial competence as per the entrepreneurial value creation theory. A recommendation was made by post-incubatees that there should be manufacturing centres where businesses can go post-incubation to use specialised machinery to manufacture goods at a minimal cost. The cost of doing business seems to be unfavourable to start-up companies requiring funding, this can lead to a competitive advantage if incubators provide a start-up funding package or loan to their post-incubatees to survive in the market.

Figure 5.5 is a summary of the key aspects that post-incubatees discussed under the theme of entrepreneurial competence. The main elements that post-incubatees spoke of under the sub-theme monitoring and evaluation were related to the possibility of a continuation of mentor-mentee relations after exiting the programme and a lack of business performance systems relating to post-incubatees businesses. On the sub-theme of market positioning, post-incubatees highlighted their ability to enter international markets, the need for support from national development agencies and the critical aspect of being able to advertise their businesses on social media platforms. Barriers were discussed as a sub-theme; post-incubatees alluded to industry completion, dominance of multinational companies, regulatory requirements, lack of capital and a lack of infrastructure as key challenges facing their businesses after exiting or graduating from a business incubation programme.

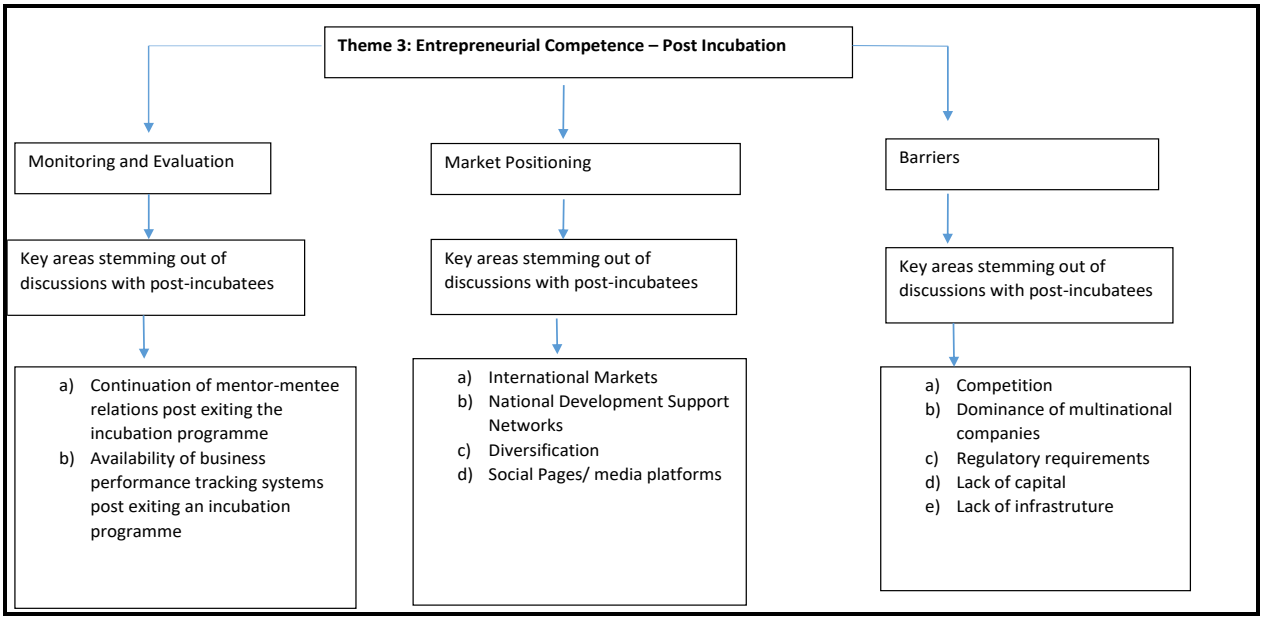

Figure 5.5: Theme 3: Entrepreneurial Competence – Post Business Incubation (Source: Researcher's Compilation)

5.2.4 Theme 4: Entrepreneurial reward

In addressing question 5, the researcher is looking at phases of post business incubation of when the rewards are positively achieved or when they are negative, and what makes them so. Consistent with the objectives of the research study, the researcher was accessing the entrepreneurial effort and whether the marginal products of their efforts were positive or negative.

a) **Business growth or decline**

According to Morrison, Breen and Ali (2003), it has been proposed that small business growth does not represent a self-evident phenomenon nor is it a matter of chance, but it is rather a result of clear, positively motivated business intentions and actions on the part of the owner/manager, driven by the belief that the owner/manager can produce the desired outcomes (Gray, 2000; Maki & Pukkinen, 2000). Furthermore, they tend to be personality driven and opportunistic or instinctive in approach (Burke & Jarrat, 2000). Maki and Pukkinen (2000) consider that it is important to differentiate among the intention, ability and opportunity to grow. Valéau (2023) acknowledges that small business owners are not immune to discouragement when confronted with venture decline, despite their diverse non-exclusively financial goals, they may feel the temptation to exit.

Most participants' responses spoke to the second phase of the entrepreneurial value creation theory. Most businesses indicated a level of survival after graduating from an incubation programme. Their level of growth is evident in their increase in turnover, new markets and increase in the number of jobs created. In the second stage of entrepreneurial value creation theory, for the venture (incubatee's venture) to sustain growth and profitability it builds or acquires dynamic capabilities. The venture may obtain external resources, if necessary, such as venture capital or strategic alliances to acquire dynamic capabilities. At this stage the due diligence modulator regulates the availability of external resources based on whether the entrepreneurial competence is sufficiently developed in stage one and whether the potential entrepreneurial reward is worthwhile for the investor (Lanham-New, 2019).

> *Currently I've employed 200 people and the business when I joined the incubator I had, I think about 30 people –participant 2*

> *Definitely I would say only profitability because they were no losses that I actually incurred by associating myself with the incubator. I now have, additional business contracts and additional revenue, obviously, yeah – Participant 7*

> *I mean, I'm like 3 years now into the business, I translate, and I do engineering work – Participant 1*

> *It did help, because without that Incubation, I don't think I would be where I am today. We also have a system whereby people can shop groceries, they can buy*

takeaways from Spar, McDonald's, KFC everywhere using our platform – Participant 5

And then after the funding, I managed to employ about five employees so far and we still need more staff because there's a lot on the platform – Participant 5

The business is now 7 years old – Participant 3

I would say that our business is doing well – Participant 8

Here in South Africa and Africa as a whole, if you go to our social page, you'll find our mission statement does state that, it's a South African social network that aims to bring businesses to the global platform – Participant 5

The theory of entrepreneurial value creation further states that, if the incubator and the incubatee cannot obtain the needed external resources, the capital constraints force the venture to recycle back to stage one wherein the entrepreneurial competence is further developed. The investor's due diligence occurs in two steps. In the first step, an investor or a strategic partner assesses the risk of loss and determines if the loss is affordable. In the second step of due diligence, the investor or the strategic partner maximises the expected return at a given level of affordable loss (Lanham-New, 2019; Mishra & Zachary, 2015; Mishra & Zachary, 2014; Hacket & Dilts, 2004). This is seen in the resilience of participants who, despite the challenges experienced, identified other business ventures to survive.

But the business that I wanted to do didn't actually materialise due to lack of funds for raw material, but I ventured into a different industry - Participant 6

I've started making my own products. - Participant 3

All post-incubatees interviewed showed a level of growth in their businesses after graduating or exiting the business incubation programme. Although these businesses do not have formalised monitoring systems, through their bank statements, number of employees they have and the number of tenders and contracts they have, they have shown an element of growth. Most of the post-incubatees have been out of the programme for over five years, they managed to survive the COVID-19 pandemic and economic challenges post COVID-19.

These post-incubatees managed to find ways of diversifying their offerings to enter into more sustainable national and international markets.

Figure 5.6 highlights key elements of the theme: Entrepreneurial reward. The number of employees, business turnover and attraction or decline in the attraction of new markets were highlighted as sub-themes and these assisted in monitoring the current position of post-incubatees' businesses.

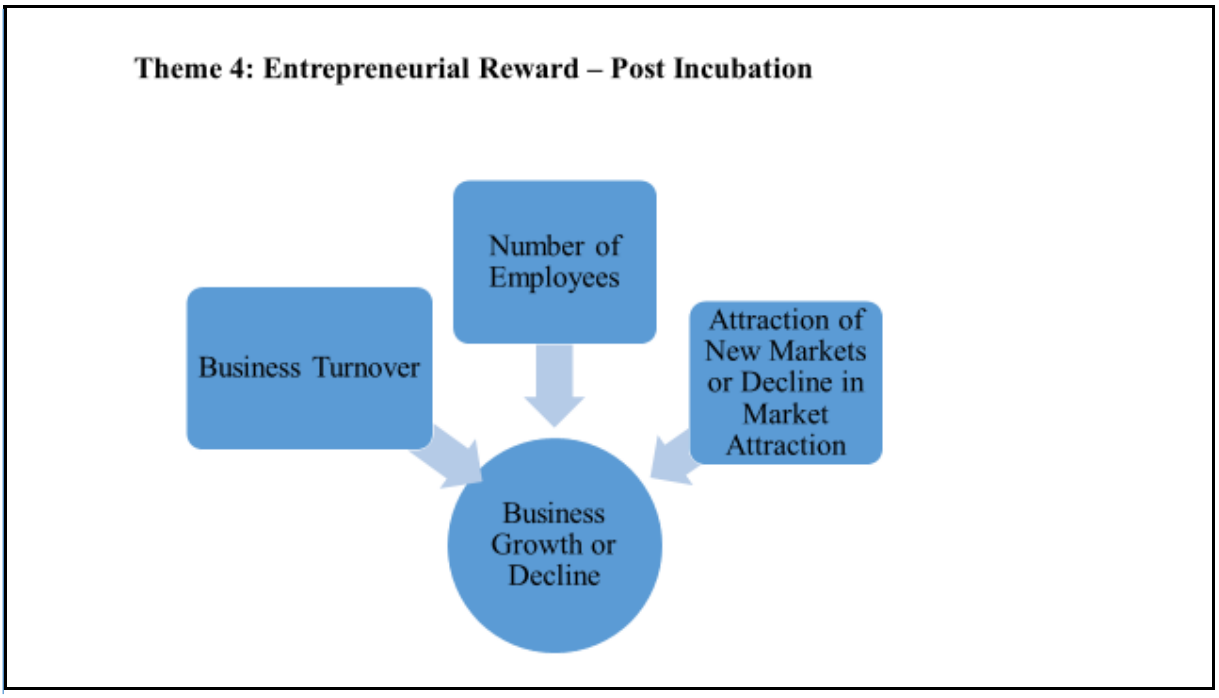

Figure 5.6: Theme 4 – Entrepreneurial Rewards – Post Business Incubation (Source: Researcher's Compilation)

5.3 Focus Group Sessions

Three focus group sessions were undertaken with the involvement of representatives of incubation practitioners which included managers, mentors, coaches and policy developers. Incubator A has four business incubation centres in the southern part of the Gauteng province. The first focus group was conducted with participants from Incubator A, where practitioners from three incubators were represented. For the first focus group session the ATLAS.ti system generated 104 codes and 55 quotations. However, the researcher further applied grounded theory and Colaizzi's (1978) seven-step approach to data analysis. These processes were followed to code and analyse data which led to the generation of main themes and sub-themes.

The second focus group session (Incubation B) was conducted with representatives from four incubators housed under a business Hub in the northern part of the Gauteng province. For the second focus group session the ATLAS.ti system generated 85 codes and 37 quotations. The researcher also conducted a manual coding process using grounded theory and Colaizzi's (1978) seven-step approach to data analysis. The themes and sub-themes generated were similar to those developed in the coding process of the first focus group session, which are selection performance and mentoring as well as business assistance intensity.

The third focus group session was held with practitioners from Incubator C which forms part of the four incubators affiliated with Incubation (A). The ATLAS.ti system generated 58 codes and 29 quotations. A saturation point was reached during the third session as practitioners started to indicate similar points as those highlighted by participants in the first two sessions. The letters 'FG' which mean focus group were placed next to the word participant, this was done to distinguish focus group participants from those of interview sessions with post-incubatees.

Table 5.3 indicates the profiles of focus group participants. In analysing the data received from these focus group sessions, the researcher first used the ATLAS.ti coding system. This was followed by a manual process using grounded theory and Colaizzi's (1978) seven-step approach to data analysis. These processes were followed to code and analyse data which led to the generation of the main themes and sub-themes.

Table 5.3 Profile of Participants for Focus Group Sessions (Source: Compiled by Researcher)

Focus Group Session	**Participant**	**Line of Specialisation**
Group 1	Participant 1FG	Business Incubation Manager
	Participant 2FG	Business Mentor/Coach
	Participant 3FG	Business Incubation Manager/Programme Developer
	Participant 4FG	Business Incubation Manager/Mentor
	Participant 5FG	Mentor/Coach/Industry Specialist
Focus Group 2	Participant 1FG	Incubation Manager/Mentor
	Participant 2FG	Mentor/Coach

	Participant 3FG	Incubation Manager/ Programme Developer
	Participant 4FG	Programme Manager
	Participant 5FG	Programme Manager/Mentor
	Participant 6FG	Programme Manager/Coach
Focus Group 3	Participant 1FG	Section Manager
	Participant 2FG	Incubation Manager
	Participant 3FG	Section Manager

Table 5.4 is an example of the focus group coding process. Direct quotations were extracted from discussions with participants, this process led to the development of main themes and sub-themes for the focus group sessions.

Table 5.4 Focus Group 1, Coding process example (Source: Compiled by researcher)

Document	Quotation	Codes
Business Incubation Research - focus group 1.docx	*Umm so, from my end I work on the recruitment and on- boarding in the maintenance department of the incubation programme. Participant 2FG of the first focus group*	▪ Work ▪ Recruitment ▪ Organisational Development: On-boarding, Maintenance ▪ Organisational Development: Department ▪ Organisational Development: Incubation program
Business Incubation Research - focus group 1.docx	*It's also ensuring that post-incubatees have continued business development support and this is also after care. Participant 3 FG of the first focus group*	▪ Support ▪ Organisational Development: Continuation
Business Incubation Research - focus group 1.docx	*After they graduate from the incubation programme, we do keep in touch with them to ensure that they know how to be sustainable, it's something we still have not, in my opinion, fine-tuned entirely, but we keep the*	▪ Uncertainty ▪ Feedback ▪ Collaboration ▪ Leadership

	relationship open because we have an ecosystem that involves stakeholders, suppliers. The network is very unique as us, service providers and managers of the programme answer to stakeholders who are board members as well. Participant 1FG of the first focus group	
Business Incubation Research - focus group 1.docx	*There are three groups that we categorise them in for compliance. These are new entrants that we're trying to get compliant with all the statutory documents. Participant 4FG of the first focus group*	▪ Entrepreneurial processes
Business Incubation Research - focus group 1.docx	*And the most popular or the top two would be market linkage and it would also be funding linkages for expansion, for operational services - OPS or whatever the case may be. And then finally, C is what we deem quote unquote a high-end SME and this is the one that is already established, has high turnover and possibly high job count because those are the critical key points that we cater to as part of business development is concerned. Participant 4FG of the first focus group.*	▪ Business development ▪ Expansion ▪ Success story ▪ Entrepreneurship ▪ Organisational Development: Market linkage ▪ Funding opportunities
Business Incubation Research - focus group 1.docx	*And we keep the channels open in as far as linking them, perhaps with industry bodies that we are affiliated with because we have partnerships as I mentioned, not only in the country but internationally. And we keep those channels open. They don't*	▪ Networking ▪ Sustainability ▪ Support

	necessarily leave the system per say. We keep the channels open. But I think in as far as sustainability, what we have assisted, those that have graduated before in helping them with the business case. Participant 3FG of the first focus group	
Business Incubation Research - focus group 1.docx	*And sometimes when they reach the success, they don't know how to manage it. So, there's that management consultancy that is available with different interventions. You'll note in the incubator we also have finance, section. The incubator has wellness and personal development sections where we help them with psychometric assessments. Participant 1FG of the first focus group*	▪ Career development ▪ Consulting ▪ Personal development ▪ Financial management ▪ Wellness, Entrepreneurial process
Business Incubation Research - focus group 1.docx	*Among other interventions that are offered, and these are key interventions to ensure a sustenance of any small to medium enterprise. Participant 2FG of the first focus group*	▪ Professionalism ▪ Collegiality

The theory of business incubation seeks to explain how business incubators and the process of business incubation increase the likelihood that new ventures will survive the early stages of development (Hackett & Dilts, 2004). Using the lenses of the theory of business incubation, the focus of business incubators is on helping to raise early-stage technology-based ventures up to a level where they can seize business opportunities and compete in the market without further support.

In understanding the business incubation programme in Gauteng and how it influences the survival of businesses after exiting the programme, it was imperative that the researcher conducts

focus groups with industry experts. Figure 5.7 indicates the main themes and sub-themes that were developed from focus groups sessions which are: selection performance as well as mentoring and business assistance intensity.

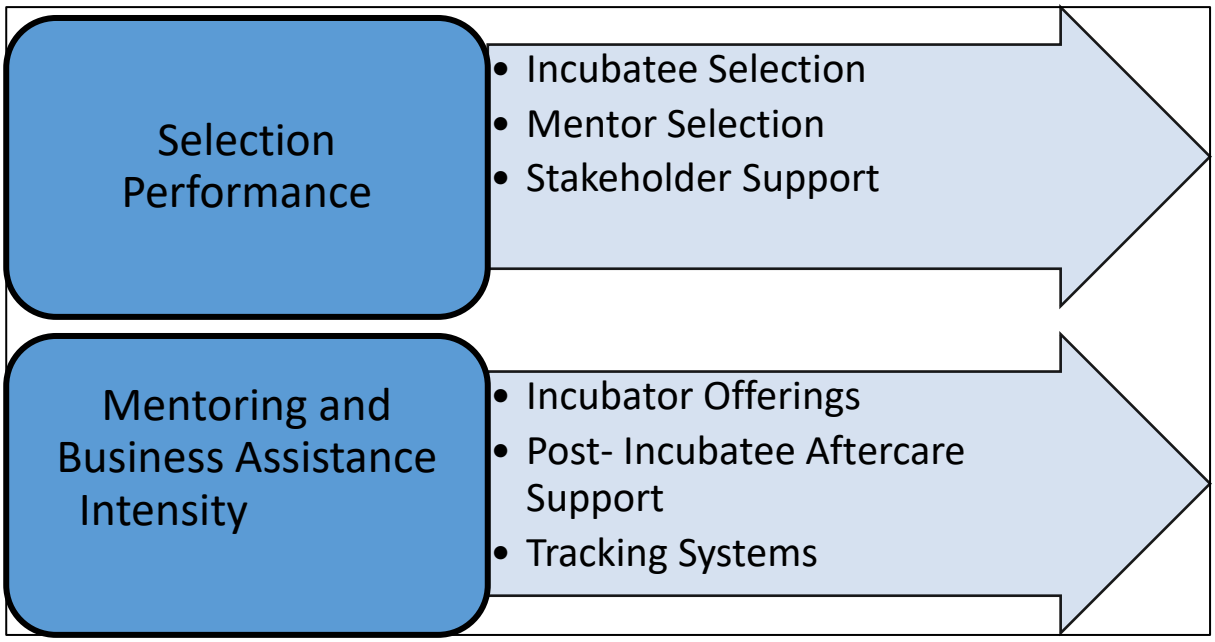

Figure 5.7: Main Themes and Sub-Themes for Focus Group Sessions (Source: Compiled by the researcher)

The themes were discussed as follows:

5.3.1 Theme 1: Selection performance (SP)

Refers to the degree to which the incubator behaves like an ideal type venture capitalist when selecting emerging businesses (options) for admission to the incubator. Relevant dimensions of selection performance include a propensity to select an emerging business for admission to the incubator based on managerial characteristics, market characteristics, product characteristics and financial characteristics. This theme spoke to mainly questions 1 and 4 of the focus groups data collection process. Three sub-themes of incubatee selection, mentor selection and stakeholder support emerged as the researcher was coding the data collected. The sub-themes are discussed as follows:

a) **Incubatee selection**

The selection criteria for admission into an incubator will majorly focus on start-up businesses that its developers believe to have high potential: They have a product or service that is based on technological knowledge; are likely to achieve significant growth in three years in terms of sales and number of employees and demonstrate considerable export potential (Wachira, Ngugi & Otieno, 2017). Incubatee selection was the first sub-theme identified under selection performance.

Participants from Focus Group A indicated that on-boarding and recruitment of incubatees is mainly done through the requests received from stakeholders in specialised industries, given that the incubator forms part of one of the key institutions in the mining, construction and engineering industries. However, other sources of recruitment are the use of data-bases and community engagements.

> *Specifically for recruitment and on boarding of incubatees. We are approached by the stakeholders, mining houses, and etc. - Participant 2FG*

> *The second channel could be through the supplier database and […] – Participant 1FG*

> *We do also have a community engagement department that specifically looks at the communities to also collect data around what type of SMMEs are there and if they are feasible – Participant 2FG*

> *[…] those are the most basic criteria unless we get guidance or instruction from a stakeholder to say listen, can you I have people that are not within our industry or within the community in which we operate in, can you assist them with being formalised, right? So, the criteria there in is informed by the requests of the stakeholders. Then we'll go far and wide to collect data – Participant 4FG*

The focus group indicated the need for potential incubatees to come in as formalised businesses before they can be considered for incubation. This usually makes it easier to grade the business in terms of their developmental needs.

The basic criteria and as far as on boarding is concerned, it's just basic statutory documents. Are you a formalised SMME by a way of close corporation (CK) registration? – Participant 3FG

We check if the SMME has a bank account confirmation, BEE certificate, shareholding certificate, etc., and then the rest will be assessed when it's trickled down through a gap analysis, developmental planning and ultimately a pre incubation contract which is 3 months – Participant 4FG

In the first focus group session, the incubation management also indicated the need for proper processes to be followed in the selection of incubatees and in the on-boarding process. This process allows for industry classification and, later, it will guide the selection of appropriate mentors.

We do assessments and registrations and narrow it down and at times we will do site audits and also scrutinise integrity of the information that we've got from on-boarding. This is something we do deliberately as well to say, indeed are you where you say you are as a business?, we have to ensure that all that information is collected – Participant 3FG

We are an ISO certified Incubation. Everything that we do is documented and agreed upon prior. We've got clear implementation plans - Participant 2FG

Participants indicated that a gap analysis needs to be conducted so that a development plan can be crafted and to also ensure alignment with relevant mentors for the process to be customised.

We do a gap analysis, which then informs the developmental plans because our method is not, you know, a blanket approach. It is a customised approach for us to help you with the pressure points that you need, and we provide immediate interventions - Participant 3FG

Various departments within the programme will do what we call developmental plans to ensure that they prepare the interventions – Participant 5

We do have a monitoring and evaluation department that also measures the impact through impact assessments and surveys, et cetera. So, they consolidate

all the info. We do weekly, monthly, quarterly and annual reports to our various stakeholders to just speak to the incubation journey of each of our incubatees. So obviously those milestones that are reached, are communicated and reported because we are held to account using the key performance indicators (KPIs) that are audited. – Participant 3FG

b) **Mentor Selection**

The main criterion for selection is the level of experience and knowledge in a particular area. A successful mentor must have a high level of general and professional culture, professional erudition, high morale, intelligence as well as possess organisational, pedagogical, psychological and knowledge of a specific field. Yes, it is quite common to think that a good specialist automatically turns into a good mentor. But this subjective assessment is based only on the knowledge of the specialist. On the other hand, the mentor must have good pedagogical and psychophysiological qualities (Volodymyrovych, Volodymyrovych & Mykhaylovych, 2020).

The incubator managers in the first focus group indicated that the recruitment of mentors is structured based on the mentor's ability to relate to industry aspects and dynamics. They recruit industry specialists to coach the incubatees through the development stages of their businesses. This also leads to a handholding process in creating market linkages.

With all four of our incubator sites in Gauteng the structure is that its mentors and coaches are businesses, you know it's not just individuals. So, they allocate a business that is a subject matter specialist in this particular service, for example, an executive of a mining company. That business, therefore, takes care of that particular service or need of the SMME – Participant 1FG

The mentors and incubation practitioners indicated there is no ratio in the allocation of mentors, it's all industry related depending on the needs of incubatees.

So, the volume of the amount of people is not linked to an individual but to business needs. Therefore, now the mentor would allocate a structure focusing on this area of needs – Participant 2FG

c) **Stakeholder Support**

Stakeholders are defined as actors who have an interest in the issue under consideration; who are affected by the issue or who, because of their position, have or could have an active or passive influence on the decision-making and implementation processes (Balane, Palafox, Palileo-Villanueva, McKee & Balabanova, 2020; Brugha & Varvasovszky, 2000).

The first focus group demonstrated how their selected mentors form part of their governance structure (board of directors). They even indicted their need to have standing agreements, such as a memorandum of agreement, to formalise and standardise their agreements with stakeholders. These agreements also capture roles and responsibilities of what each stakeholder can and should contribute in the growing incubatees' businesses. The stakeholders range from market access and development institutions such Productivity-SA, Chambers of Commerce and industry specialist institutions in the mining and engineering industries.

> *But I think unique to Incubator A is that the stakeholders that we have in our ecosystem are also board members of the incubation programme. And part of the MOUs we have with them, is to ensure that they get exposed to procurement opportunities – Participant 4FG*

> *We do primarily deal with industries within engineering, mining and manufacturing, but in the recent years it's expanded to through to agriculture, green economy, construction inputs to name but a few. So, it's an extensive industry base that ensures exposure to these SMEs and we historically had what we call quarterly open days where regionally we would have SMEs exhibit the products, but also linked to industry and industry bodies like the East Rand Chamber of Commerce – Participant 3FG*

> *Like productivity South Africa, and next week, there's a Township Economy Expo which we usually negotiate with these partners to say can they exhibit incubates' products and services. There is deliberate efforts in as far as an intervention is concerned as market linkage access needs to speak to directly to whatever industries that they are in – Participant 2FG*

> *Incubator A has partners with quite a number of companies or businesses, and which also fund enterprise development– Participant 4FG*

Mentors, coaches and policy developers from the first focus group session indicated the importance of doing a gap and needs analysis of business ideas and the business of incubatees before an on-boarding process of new incubatees commences. In this manner the business incubator will be able to assess where the incubatee's business predicament lies and mentors must first conduct a thorough needs analysis. A needs analysis will make it clear whether the potential incubatee has the skills and experience of the proposed industry. In the final analysis, a decision that calls for a training solution must come at the back of a properly run process of needs analysis that points to a lack of knowledge and skills as the definite reason for the performance gap.

An evidence-based approach to training needs analysis is a highly recommended, yet often missing, first step in designing training programs. However, the post-incubatees interviewed, particularly those from Incubator A, indicated that the training received was too generic whereas the programme developers and mentors indicated that a gap and needs analysis was conducted. This indicates a gap in addressing the expectations from both the incubator and the incubatee.

On the selection of mentors, participants mentioned that they appoint industry specialists as mentors. This is of great importance in ensuring that incubatees are coached in a specific industry and can meet industry needs. However, the group also mentioned that there is no ratio on the allocation of mentors to mentees, this raises a concern, as mentioned in post–incubatees' interviews, that mentors are seldom available and there are too many incubatees assigned to a particular mentor.

Stakeholder support is of great importance to both practitioners and post-incubatees interviewed. All parties showed appreciation of the contributions and support received from their respective stakeholders. However, one key element is that the stakeholders should create further opportunities for current incubatees and post-incubatees to be vendor registered and to receive opportunities to not only be mentored but to also have access to business opportunities.

In Figure 5.8 a summary of key findings under the first main theme on selection performance and sub-themes are discussed. On the sub-theme of incubatee selection, elements of the on-boarding process indicated that intake of incubatees is based on stakeholder requests and the potential

incubatees' business need to be formally registered businesses. Gap analysis needs to be done to grade potential incubatees based on their developmental needs. The mentor selection sub-theme indicated that participants spoke mainly about the appointment of business owners and industry specialists as mentors and how there is no ratio in the allocation of mentors to mentees. The third sub-theme was based on stakeholder support and the key elements that participants alluded to be the signing of agreements with development institutions and for stakeholders to be part of the incubator's governance structure.

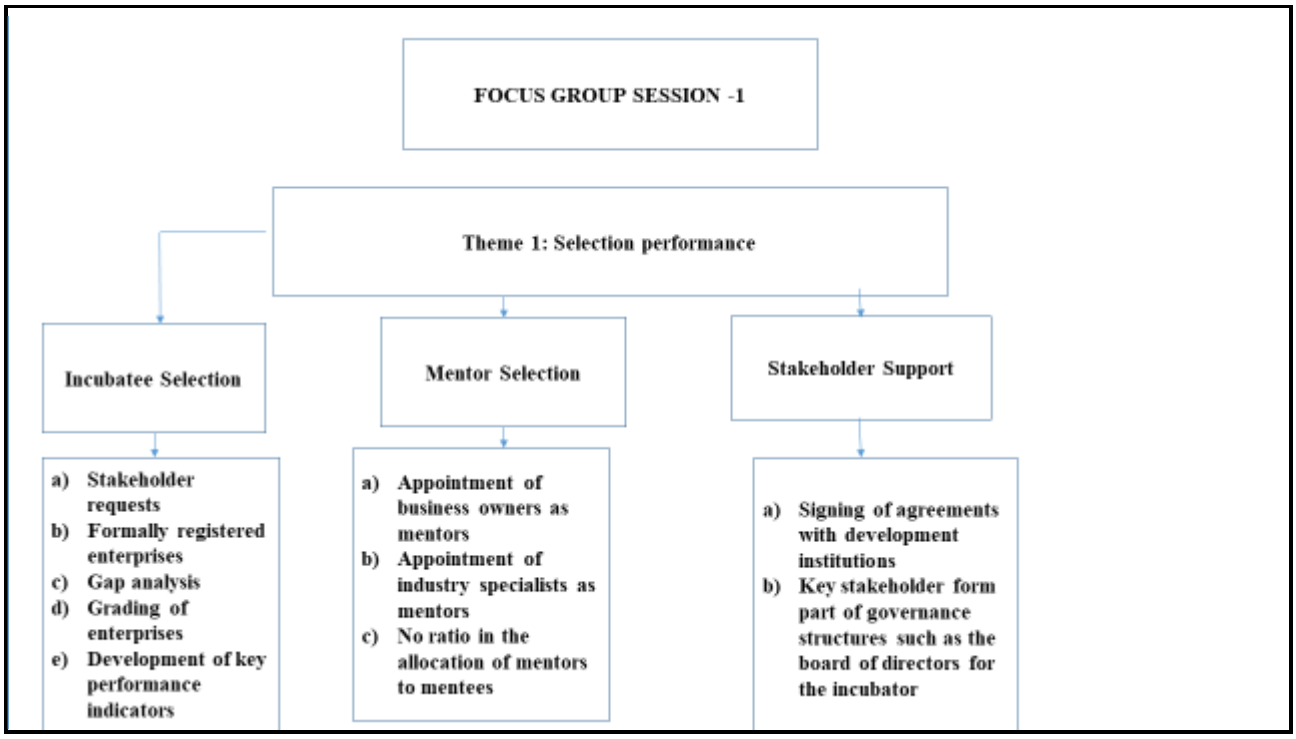

Figure 5.8: Summary of the first main theme and sub-themes for the first focus group (Source: Compiled by the researcher)

5.3.2 Theme 2: Mentoring and business assistance intensity

According to Khalid, Kayani and Gilbert (2018), as also highlighted in the business incubation theory, monitoring of incubatees and providing business assistance to the incubatees have been part of incubator services for quite some time. Literature on incubation acknowledged the need for incubatee monitoring to ensure that businesses progress smoothly. The incubators confirm in their studies that monitoring of incubatees is a source of value that they can offer to their incubatees as it is a critical success factor for incubators. Business assistance is associated with business incubation performance.

The significance of monitoring or coaching, which is referred to as training and educational workshops offered, seminars and programmes; either offered to incubatees for a fee or free of charge, have been established as factors associated with increasing incubatee graduation rates. The theory of business incubation states that the incubation process needs to include monitoring and evaluation of incubatee progress to commercialise business ideas.

a) **Incubator Offerings**

According to Bruneel, Ratinho, Clarysse and Groen (2012), business support services such as coaching and training are crucial elements of learning within business incubators (BIs). Coaching is typically mentioned as an important service that BIs provide to their tenants. Coaching refers to one-to-one support initiatives geared to accelerate tenants' learning and skill development processes, generally involving tenant businesses being assigned coaches or mentors, either for a fee or free of charge. Such coaching typically covers both scientific and managerial areas of expertise (Moitse, 2021).

Coaching interactions between the incubated business and BI management increases tenants' understanding of buyer preferences. Business support is also critical to tenants' timely graduation due to its impact on firm development. Training is often available within BIs and has been found to positively influence tenants' performance (Hu, Ahmad & Lu, 2023). Network exploitation by BIs provides tenants with preferential access to potential customers, suppliers, technology partners and investors. Institutionalised networks, established and managed by BIs, ensure that networking is no longer dependent on individuals' personal networks or contacts.

Networking is the most important factor in successful BI programmes and empirical evidence suggests that access to networks is critical for BIs' tenants' companies' development. In essence, facilitating access to external networks by BIs eases the acquisition of resources and specialised expertise, provides learning opportunities and allows new businesses to build up legitimacy faster. Incubator offerings mainly spoke to question 1 of the data collected from the focus groups.

Participants from the first focus group session spoke about having taken their incubatees through a new venture creation programme that has 10 modules. The programme was explained to include core elements of business development, including quality management.

We have programmes such as new venture creation and quality management systems, so this teaches them the basic fundamentals of running a business and also being able to deliver quality services or products to their customers – Participant 1FG

Under new venture creation which a NQF level 2, incubatees are taken through ten models that comprise of orientation to the New Venture Creation Programme, here incubatees are introduced to the skills and strategies needed to succeed in new venture creation. This module teaches learners the individual characteristics essential to every entrepreneur and the importance of analytical, creative and innovative thinking needed for growth in business. The course also teaches them planning for business success where incubatees are shown how to identify and explore new ideas and potential ventures and the, how to produce business, financial and operational plans. There is also marketing and sales strategies, finances and financing a new venture and as well as business plan writing skills – Participant 1FG

Under quality management system, one of the things that they are taught is to be able to understand documents, policies and work instructions for their businesses so that when they do production or when they render services to their clients they can have full understanding. The aim is to do everything with quality in mind - Participant 5FG

The coaches and mentors in the focus group indicated that they also offer soft skills to incubatees during the incubation period which is normally three years. This enhances their ability to interact with the market. They indicated that training and coaching on business communication skills and ethics was of great importance given that most of their incubatees are in specialised industries such as mining, construction and engineering and, therefore, require the necessary communication and behavioural skills.

We teach them reliability and trustworthiness, so this would refer to making sure that they deliver good and quality products to their clients or customers. Like I mentioned, reliability as well, their customers should be able to rely on them, I think that's one of the things that would even attract more customers to sustain their businesses – Participant 1FG

Communication in business can sometimes be a different language all together with industry jargon and terms. Incubatees will explore strategies of effective speaking, negotiating and communication in a business environment. Writing and presenting your business plan – Participant 2FG

Participants indicated that the main service that they offer, particularly in the mentor-mentee relationship, is the creation of market linkages and facilitation of a handholding process where necessary.

Market support, I think that role sits with the mentors and coaches because that is the most important thing. Remember, the whole idea for Incubator A is to take SMMEs from one level based on their capability analysis and to move them to a higher and better level– Participant 4FG

b) **Post-incubatee aftercare**

Participants indicated that the post-incubation support is mostly conducted when post-incubatees experience expansion challenges or when there is a need to comply with new industry standards.

What really normally happens, because remember as a business you grow, what you also look at is your scope and expansion. They now need to understand how they can maintain their business growth and from a client's point of view. This is where when you increase scope you need to now align to the compliance specification of your new scope of work. So that's where we also support – Participant 5FG

We see most of the SMMES coming back to us, requiring new scope of work and guidance particularly in specialised fields. Then we assist licence their new requirements – Participant 4FG

When post-incubatees return to us for further assistance, we assist them beyond what we incubated them for. So that is the most crucial element of post assistance with them because without increasing your businesses scope of work, it means you're not growing as a business and that is very crucial and that's where we actually see them coming back – Participant 1FG

Other specific interventions mentioned for post-incubation support included market linkages and assistance on funding relating expansion. However, high-end SMEs are also catered for in their expansion process.

> *We assist them with various interventions and the most popular or the top two would be market linkage and it would also be funding linkages for expansion and for operational services - OPS or whatever the case may be. Then finally, category C incubatees is what we deem quote unquote a high-end SME, and this is one that is already established, has high turnover and possibly high job count because those are the critical key points that we cater to as part of a success story and as far as business development is concerned – Participant 3FG*

> *We keep the channels open in as far as linking them, perhaps with industry bodies that we are affiliated with because we have partnerships as I mentioned, not only in the country but internationally. And we keep those channels open. They don't necessarily leave the system per say. We keep the channels open. But I think in as far as sustainability, what we have assisted, those that have graduated from programme is in helping them with their business case for expansion – Participant 5FG*

> *Sometimes when they reach the success, they don't know how to manage it. So, there's that management consultancy that is available with different interventions. You'll note in the incubator we have finance, we have wellness, personal developments where we help them with psychometric assessments at initial stages but we also offer it when the post –incubatees return seeking further assistance – Participant 2FG*

The other means of ensuring continuous support to post–incubatees is by inviting them to an exhibition with the hope of linking them to new markets or expanding their client base, domestically or internationally.

> *If Incubator A is invited as an incubator to come and exhibit, we go to a database and look for an applicable SME in an applicable industry to exhibit there. I mean with our partners. I don't know if I'm at liberty to mention them but if they do have a standing exhibition stand, we extend it to our SMMEs. We also do coach them on how to present themselves effectively. You might find that somebody is technically inclined and not really a strong communicator – Participant 4FG*

So yeah, there are considered efforts for market linkage for exposure, and we have partnerships with the Export Council. This is to get them exposed to trade visits outside of South Africa - Participant - 5FG

The participant indicated that in their incubation programme they have systems in place in relation to market access.

So, in terms of market access, we do have a dedicated department that deals with that- Participant - 3FG

c) **Tracking systems**

To ensure the effectiveness of these programmes, it is crucial to measure and track their impact, both for the start-ups involved and the broader entrepreneurial ecosystem. Accelerators should consider tracking their performance to develop the programme consistently, answering different stakeholders' needs. Start-ups focus on survival rates, revenues and growth.

Incubation managers prioritise cohort return; investors look at deal-making efficiency. Policymakers prioritise job creation and local industry impact. Evaluating its performance, including features alignment, funding success and post-graduation start-up performance can make you scale faster. It emphasises the broader impact on regional economies and the funding landscape. Understanding these aspects aid decision-making and fosters a comprehensive view of accelerator effectiveness (Awonuga, Mhlongo, Olatoye, Ibeh, Elufioye & Asuzu, 2024; Muathe & Otieno, 2022). This sub-theme is mainly related to question 3 of the focus group sessions. It was indicated that Incubator A did not have a solid system that tracks incubatees. However, they try to write reports on data that are accessible.

After incubatees graduate from the incubation programme and we do keep in touch with them to ensure that they know how to be sustainable, it's something we still have not, in my opinion, fine-tuned entirely, but we keep the channels open because we have an ecosystem that involves stakeholders, suppliers, the network is very unique and us, as mentors and managers of the programme answer to stakeholders who are board members as well – Participant 5FG

You'll note that most incubators use a system that is endorsed by The Small Enterprise Development Agency, which is called growth wheel to measure the growth and impact of the SME and also which is a data management tool where the information is there, you know we have an auditable track record and we're an ISO certified business as well. However, this system is limited to current incubatees not the graduated ones - Participant 2FG

We do have a monitoring and evaluation department that also measures impact through impact assessments and surveys, et cetera. So they consolidate all the info we do weekly, monthly, quarterly and annual reports within an incubation period. So obviously those milestones that are reached are communicated and reported because we are held to account to the board of directors and stakeholders – Participant 3FG

It's worth mentioning that some things are tracked on an annual basis where you have to ensure compliance and you're in good standing continuously especially in the mining and construction industries. Safety compliance certificates need to be renewed every year. So businesses don't drop the ball should an opportunity present itself they need to be in good standing. So this service is sometimes extended to post-incubatees who return for assistance in re-registration or compliance services. I don't know if you're aware but Incubator A model also ensures that the heads of departments are also subject matter specialists like Participant 4 is a strong expert in matters of labour compliance, et cetera. – Participant 3FG

Another form of tracking is through the creation of a network of post-incubatees, where there are informal interactions with other post-incubatees.

We do maintain relationships like I mentioned earlier with our SMME post the graduation or leaving the incubator. I mean we've had people exiting the programme who are still quote - unquote friends of the incubator and we do not turn them back. It's an ongoing relationship because as we network, an ecosystem grows, we might still have something to offer – Participant 2FG

During the first group session under the second main theme, which refers to mentoring and business assistance intensity, the participants spoke at length to incubation offerings and aftercare services. The theme and sub-themes are summarised in Table 5.9. High quality

business venture development training is offered at all incubation sites. The training offered is NQF accredited. Based on the discussions with post-incubatees, they were very appreciative of the training, however, they also requested that industry-specific training programmes should be organised.

On the sub-theme on aftercare offerings, incubation practitioners and mentors highlighted that they offer post-graduation support which normally takes place when post-incubatees' businesses face expansion and compliance challenges. The only limitation regarding sub-themes on aftercare support and tracking systems is that they are not formalised, thus there is no tracking system to monitor the performance of post-incubatees' businesses once they leave the facility of the programme.

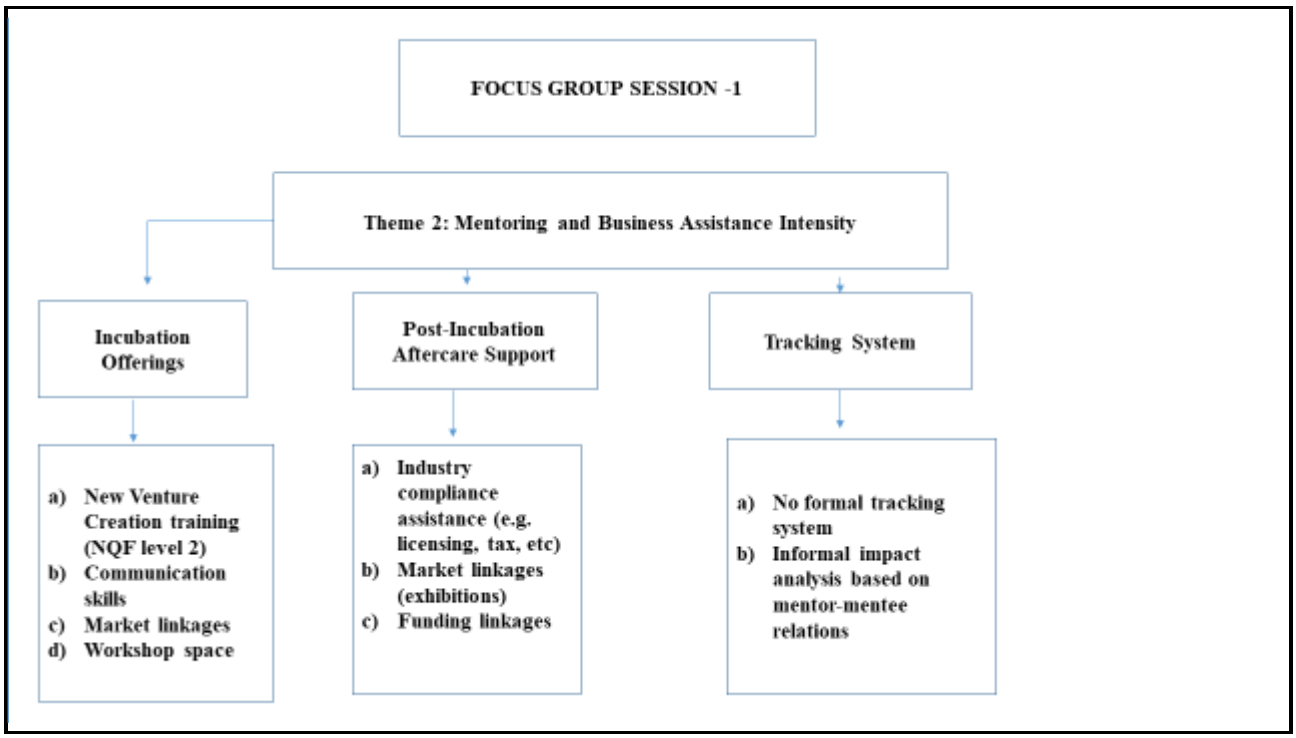

Figure 5.9: Summary of the second main theme and sub-themes for the first focus group (Source: Compiled by the researcher)

5.4 Focus Group 2

The second focus group session was conducted with representatives from three incubators housed under the Innovation Hub. The coding process followed the similar pattern as the first focus group session. The main themes were the same as those identified in the first focus group

session which are: selection performance and mentoring and business assistance intensity. The themes are discussed as follows:

5.4.1 Selection performance.

This theme refers to the degree to which the incubator behaves like an ideal type venture capitalist when selecting emerging businesses (options) for admission to the incubator.

a) **Incubatee selection**

The processes in the selection of incubatees offered by incubation practitioners in the second focus group were similar to those followed by incubation practitioners in the first group. They prefer companies to come registered however, the companies are not graded in terms of their developmental stages, as in the incubators represented in the first focus group session.

> *So, as an incubator, our normal recruitment process requires the business to be registered and have a minimum viable product. There's also another way, which is through our accelerator programme, which we then sometimes take companies or innovations that are not registered under any business at the time - Participant 1FG*

> *We try and get them to register companies first that have innovations, some enter through the accelerator programme - Participant 2FG*

> *We also check if the business is South African. We also check if they are operating in Gauteng and also if they have a registered company. We do not register them; we prefer them coming in registered - Participant 3FG*

The importance of an industry-specific incubation method was highlighted as important. This process also informs the selection and recruitment of mentors.

> *With our criteria is, we work within particular industries, which are the renewable energy, climate innovation, bio economy and the smart industry which is the digital economy - Participant 5FG*

b) **Mentor selection**

The second focus group session indicated that they recruit industry specialists which is similar to what the first focus group session indicated. However, the recruitment is done using a call for experts.

> *So, it's going to be a call where, we advertise, looking for specific mentors with specific expertise as well as experience, so that, you know, we have a diverse one. As I said, I'm coming from the green industry side, where we have the water section, then we have, you know, the energy side, and we have the waste-recycling businesses - Participant 3FG*

> *So, we'll have to try to sort of find a diverse and a broader pool of mentors, and also get the mentors and coaches that have dual expertise, like owners of large businesses or industry specialists that have a technical background – Participant 2FG*

> *It's just straight, we go out, put a call that we take it to a newspaper, and then also using some networks and links and so that we can get mentors and coaches. More on most times, it has been the mentors that have been with us for quite some time, and some of the mentor that return to work with our incubatees, so it's been like that - Participant 1FG*

c) Stakeholder support.

Similar to the first focus group, the participants indicated that they have standing agreements with industry players and experts.

> *We do have formal and non-formal agreements with various partners. We've had a lot of success with the Industrial Development Corporation (IDC). Some of their funds are tailored towards the early-stage development cycle, like the KIPP fund. - Participant 3FG*

> *WRC is a key partner for the green industry, and in most instances, we do have formal relationships with them, so yeah, that's where we are in terms of the monitoring section – Participant 6FG*

Unique to the second focus group session, participants placed emphasis on the importance of distinguishing between graduated and exited incubatees. Graduated incubatees have gone through the entire process with full business support; whereas exited incubatees are classified as those incubatees that left the programme for various reasons before the term had expired.

> *So, we distinguish between exiting and graduating incubatees. Our goal is to graduate the companies that means they've successfully completed the programme and that they can stand alone in the big world without the support of an incubator, whereas exiting is normally a case where, for various reasons, the incubator or the entrepreneur have parted ways. So, that means they haven't successfully completed the incubation programme. It can be for a variety of reasons, sometimes the entrepreneur is no longer interested in their project, or they have full time employment or it's a case of non-performance - Participant 1FG*

The participants have also indicated the need to develop a graduation criteria metrics, meaning that they do not have an approved or formal graduation criteria.

> *I think the timing of your survey is very good, because over the last year, we've undergone a process of strengthening our graduation criteria to look more at the financial metrics of the company, so looking at the liquidity, solvency, profitability, and to see if this business can actually survive. So, that's what we do, we have bookkeepers that would then do the books for the companies and then we review it as well. This done by a mentor to make sure that there's no biasness in us graduating companies. - Participant 2FG*

Similar to the first focus group, participants at the second focus group session indicated that they prefer incubating companies that are already registered and are industry compliant. The recruitment and selection of mentors and coaches is based on their experience in the industry. In accessing what post-incubatees from Incubator B indicated, they were very pleased with the calibre of mentors they had. They indicated that their mentors were industry specialists and adequate handholding, and market linkage support were provided. There was alignment in what post-incubatees from Incubator B and practitioners from Incubator B mentioned on the aspect of mentor selection.

Although key stakeholders do not necessarily form part of their governance structures, it is important to have formally signed memorandum of agreements. The second focus group

session showed that relationships with key stakeholders can be seen to be that of mutual interdependence; where incubatees benefit from their offerings and in the same light the stakeholders increase their profile, in terms of the high level of support they have provided.

Figure 5.10 is a summary of key elements that emanated from the second focus group discussion on the theme of selection performance. Incubatee selection elements raised were that potential incubatees should have formally registered businesses and their businesses should be industry-specific companies in the innovation and technology space. They also indicated that their criteria is limited to only South African entrepreneurs based in the Gauteng province. Regarding the sub-theme of mentor selection, the participants indicated that mentors are recruited by national call made via communication channels for the recruitment of mentors and, therefore, appointment of only industry specialists is possible. The stakeholder supports sub-theme indicated that there are formal and informal agreements with key stakeholders. Unique to the second focus group session, mentors and programme implementers indicated that they have standing relations with international funding institutions.

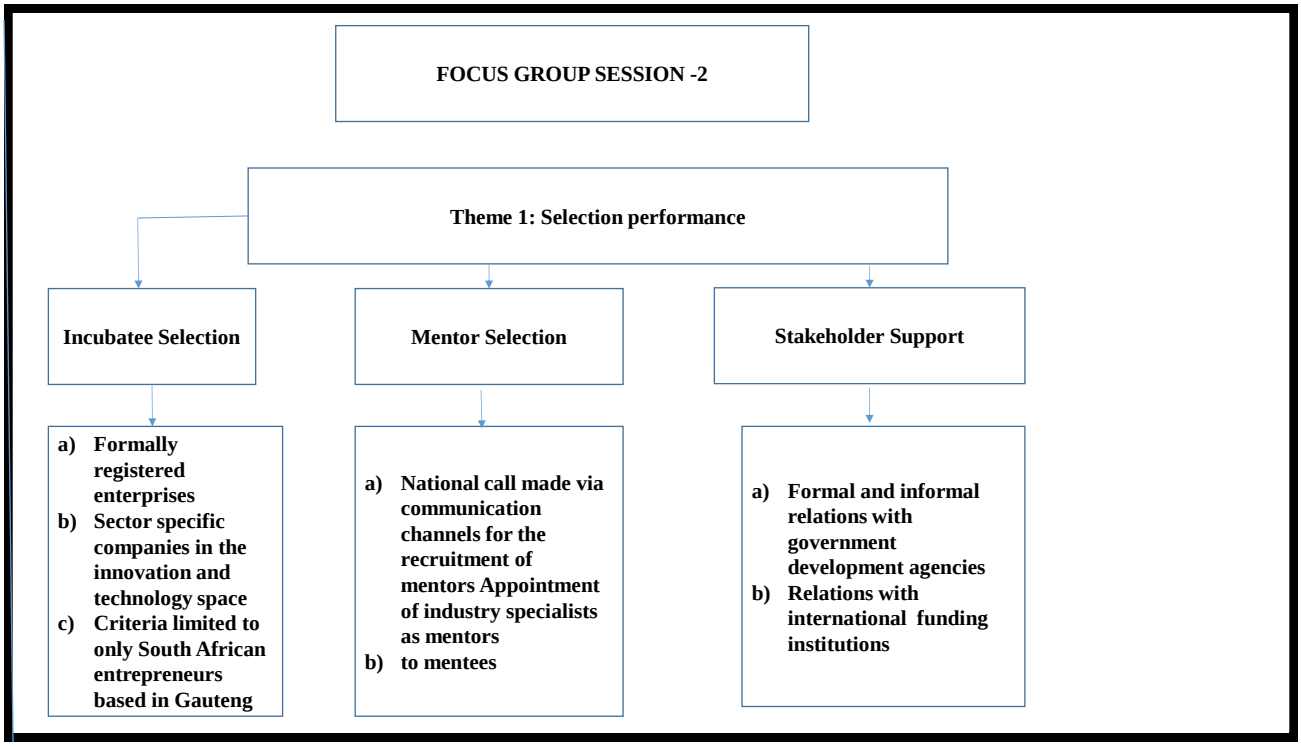

Figure 5.10: Summary of the first main theme and sub-themes for the second focus group (Source: Compiled by the researcher)

5.4.2 Mentoring and business assistance intensity

Mentoring and business assistance intensity can be viewed in that, incubated businesses benefit from the shared facilities and entrepreneurial mentoring to reach a level where they can survive and grow without any further assistance from an incubation programme. The number of experienced entrepreneurs who play a mentoring role may provide a useful indicator of the level of practical business skills that an incubator offers to early-stage technology-based businesses (Xiao & North, 2017; Xiao, Wang & Xu, 2021).

a) **Incubator offerings**

All three incubators that formed part of the second focus group session indicated that they offer specialised services such as technical spaces for the development of prototypes. This sub-theme is linked to question 1 of the focus group questions.

> *As an incubation hub, we offer co-working spaces, development centres, linkage to markets, research and assist with the development of prototypes and commercialisation – Participant 2FG*

Unique to the incubators operating under the Incubation B, incubatees were offered some form of seed funding to either develop prototypes or fact-track the commercialisation processes. The participants indicated that, given that they are in the science and innovation space, there are not many entrepreneurs venturing into the field. Therefore, investors and sponsors have been willing to offer funding as the space is not saturated.

> *Funding, incubatees really benefited from it and their entrepreneurship journey was accelerated. Unfortunately, funding is quite tight now, but we're trying to leverage off our partners to see how we can recapitalise our internal fund. It's very important to have funding for prototype development – Participant 1FG*

The participants indicated that funding can be sourced and obtained in specialised, non-saturated innovation and technology industries.

> *[…] there's not many players in this space in South Africa […]. Hence, we can sometimes provide funding. In the past we've managed to have good collaborations with technical industries - Participant 3FG*

My perspective, it's been that the hub over the last few years because they were one of the few to go into the space of innovation and technology and then operating in a space that's a cut above the rest, we've been able to then get funding from the industry where the funding was mandated just for these projects as opposed to generic incubators – Participant 2FG

So, mostly the training provided is based on the accelerator programme, which is meant to match entrepreneurs with top industry experts who, through mentorship, help them develop the core skills needed to develop innovative ideas into successful ventures – Participant 5FG

b) **Post–incubatee support – aftercare services**

All representatives from the three incubators indicated that their doors are open to assist post-incubatees with any requirements they might have after graduating from the programme. However, the incubators do not have any formal programme or a monitoring and evaluation system in place that assesses the performance of companies after graduating from the programme. Similar to the first focus group they offer exhibition and market linkage services to graduated incubatees when opportunities arise. Although the mentors have realised that the graduated companies have a great need for growth capital, and it indicates a gap in the incubation eco-system.

We do keep them in mind. So, if there is, for example, the DTIC is doing an exporting trade mission to Ghana, and we know that this business is targeting Ghana as a potential market. You know, will invite them – Participant 4FG

If we have training that's relevant, we will invite them. But often their request, it's customised for where they are at. So, it's so different and we operate, I mean, three different incubators are represented, yeah, and all in different industries. So, for example cosmetics training is only relevant for Incubator A, you know, with a certain percentage of the audience, yeah, so, but where we can provide linkage, we do. Where there are training programmes offered by stakeholders, we like to get them to attend those trainings, and for example, even today, we got an invite from SEDA to do lean manufacturing training. So, we leverage off our partners as well – Participant 5FG

So, there is still support that we provide, although it's not formalised but we do invite them to relevant events. We are looking at establishing an alumni programme. But what we've done on our research is that these companies need a lot of growth capital, so we actually need a different player in the ecosystem, such as the IDC, you know, to set up a large-scale manufacturing fund, that kind of thing - Participant 1FG

I think the biggest need for the graduated companies that we are seeing is growth capital - Participant 3FG

I know we haven't done anything additional to support them after the graduation. So, what we normally do is just a continuation of what we had when they were in the core programme. So, we would continue sharing the opportunities as and when they come through and also continue with the training. Should they want to attend the trainings. But otherwise, we haven't done a programme whereby we take care of them after the graduation – Participant 6FG

The companies that graduate from the incubation programme mostly, we still have a very good relationship with them. So, most of them, because we don't have anything crafted for them in terms of post –graduation support. So, they basically, they just come to us seeking opportunities. They might be looking for a particular, mostly customised assistance. So, it's mostly on the funding side on, getting introduced to a particular company, hand holding to a meeting or to a fund meeting, to a potential investor, something like that – Participant 4FG

c) **Tracking**

The second focus group, just like the first group, indicated that there has not been a formal or customised approach in tracking the performance of companies after a business incubation stage. Although there is no system in place, implementers and governance structures of business incubators see a gap and a need to have an impact analysis system in place.

So, there hasn't been a formal way of tracking them, but because our board wants us to understand the impact of companies. The impact is really generated from the graduated companies, because they're the ones that create a lot of jobs. They're the ones that export – Participant 1FG

So, with the companies that are graduated, it does take some time to graduate them. With the companies, we found that certain industries take longer than others to graduate from a business incubation programme. It's quite an art form as well, to build the companies and a lot of what we do is relationship based. So, depending on the portfolio, they might have a portfolio manager or mentor, and they might have a very good relationship with the graduated companies. But the companies, you know, as I said, there's strong relationships that have been built, so we do like to keep in touch with our alumni as well - Participant 5FG

The second focus group session indicated one of the most important aspects in an entrepreneur's journey; the need and provision for seed funding. The interviews with post-incubatees from Incubator B indicated that the funding provided for the development of innovations and prototypes was not sufficient and they had to source additional funding to enter the market or to commercialise. No matter how minimal it was, the seed funding provided by incubators that participated in the second focus group session, provided the incubatees with start-up fuel for entering the market. This was not the case with incubatees from Incubator A.

The element of having good relations between mentor and mentee was highlighted in all focus groups. The importance of good mentor-mentee relations should always be maintained even after completing a business incubation programme. The lack of a formal system to track the performance of incubatees that have already graduated from the programme makes it difficult for programme developers to assess the extent and the impact of the resources they have invested in the businesses they had previously incubated. Thus, there is no impact analyses and incubation outputs cannot be measured.

Figure 5.11 summarises the theme: Mentoring and business intensity of the second group session. The sub-theme on incubation offerings indicated that the incubator offers co-working spaces, infrastructure for prototype development and accelerator development programmes. The incubator continues to offer their post-incubatees access to national and international funders as part of their post-incubation aftercare support and lastly, like with the first focus group session, the participants did not have a tracking system to monitor the performance of post-incubatees' businesses after graduating from the programme.

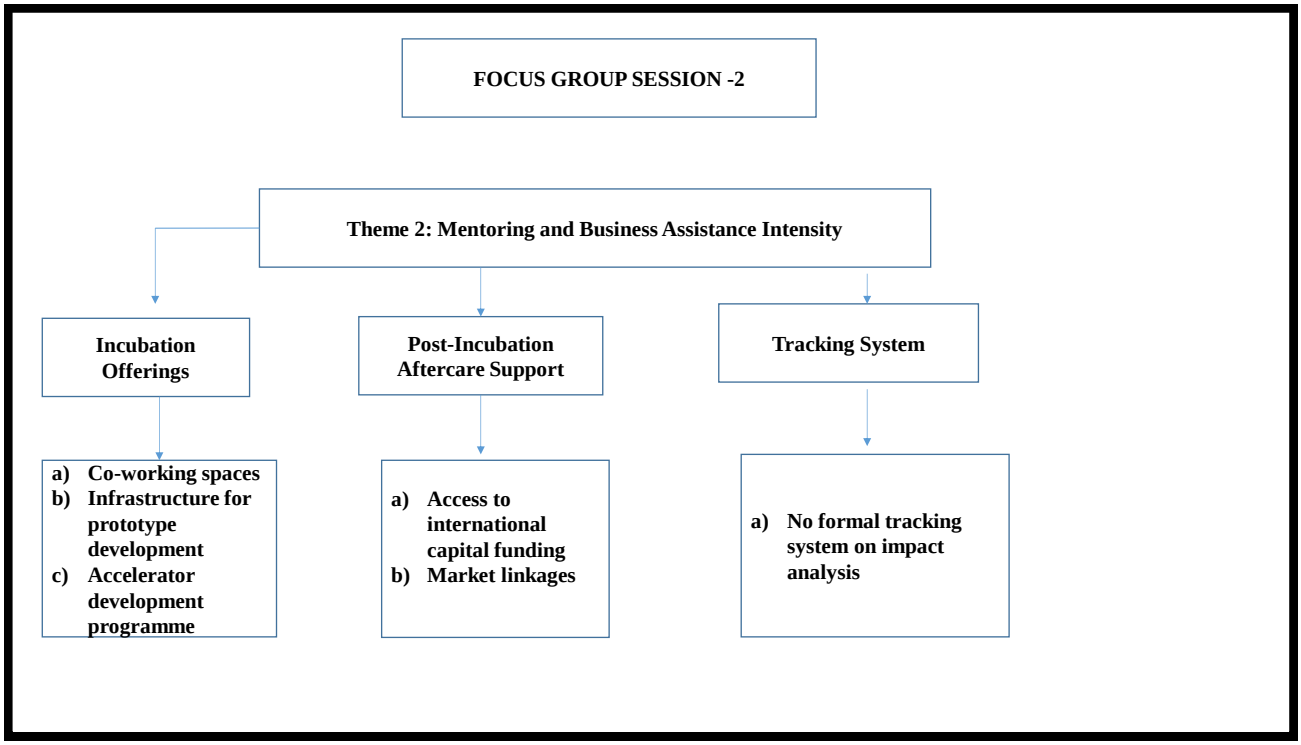

Figure 5.11: Summary of the second main theme and sub-themes for the second focus group (Source: Compiled by the researcher)

5.5 Focus Group 3

The third focus group session was conducted with incubation monitoring and evaluation specialists and impact specialists. The participants were from an incubation programme on the southern part of the Gauteng province. The participants spoke mainly to the aftercare support that they offer to businesses after graduating from a business incubation programme. Their process of incubatee selection and post –graduate support was similar to those that the first two focus group sessions mentioned. Given that participants from the third focus group session were mainly from the compliance and performance monitoring divisions of the incubation programme, the theory of business incubation was reflective in the processes.

5.5.1 Selection performance

This theme focused on relevant dimensions of selection performance including a propensity to select an emerging business for admission to the incubator based on managerial characteristics, market characteristics, product characteristics and financial characteristics.

a) **Incubatee Selection**

Similar to the first two focus group sessions, the participants mentioned that they prefer businesses that are already registered and in specialised fields such as engineering, mining and construction. However, unique to this focus group was that a three-month pre-incubation contract is entered into with a potential incubatee. Like the participants in the first focus group, incubatees are categorised based on their level of development.

> *The boarding of new incubatees takes place after they have completed the four to five documents. With the documents we establish whether they are a category A or B business. A category A is classified as a micro business with minimal experience and less market access. A category B is a business that has been running but struggling to be market compliant - Participant 2FG*

> *We provide a pre-incubation contract of three months for category A incubatees before we can move them into a full incubation programme. We prefer companies to come in registered. Given that we are in a specialised field of incubation, we incubate companies that are in the mining, construction or engineering industries – Participant 1FG*

b) **Stakeholder support**

Participants indicated their relations with various stakeholders in order to assist post incubatees.

> *We have relations with the Department of Labour where we do linkages on compliance – Participant 4FG*

> *We work well with our business chambers for exhibitions – Participant 2FG*

Figure 5.12 is a summary of the first main theme and sub-themes for the third focus group. The two sub-themes were incubatee selection, where participants indicated that before on-boarding, potential incubatees' businesses should be formally registered, be industry-specific and a pre-incubation contract should be signed. The second sub-theme spoke to stakeholder support and the importance of health and safety compliance.

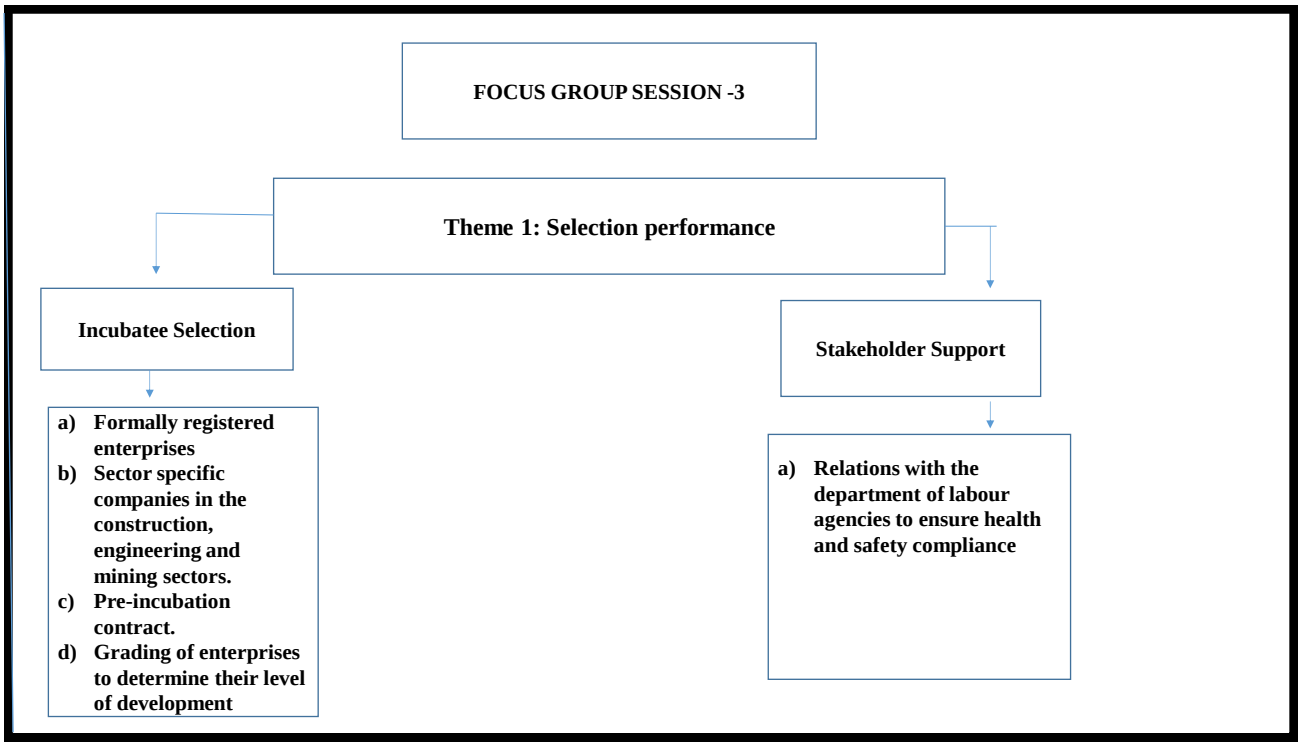

Figure 5.12: Summary of the first main theme and sub-themes for the third focus group (Source: Compiled by the researcher)

5.5.2 Mentoring and business assistance intensity

According to Chang and Cheng (2024), entrepreneurial mentoring facilitates access to external networks, eases the acquisition of resources and specialised expertise, provides learning opportunities and allows new businesses to build legitimacy faster. In this vein, entrepreneurial mentoring is a form of network access.

a) **Incubation offerings**

Under incubation offerings the third focus group indicated that they offer workshop spaces at minimal rental fees to incubatees and also have in-person meetings with businesses to understand their business growth needs.

> *From a monitoring and evaluation department, we hold monthly and weekly meetings with our current incubatees to identity areas of improvement and assistance - Participant 1FG*

> *Yes, we do have technical workshops in our main incubator centre, and it is offered to incubatees requiring working spaces. Incubatees pay minimal rent for technical*

working spaces, this facility support is also offered to post-incubatees at a fee - Participant 2FG

Following a discussion with participants, a distinguishing feature of an incubator is the provision of business support. The spaces provide a combination of workplace and supporting facilities at affordable rates. The format of the space is primarily open plan and of an informal setting, aimed at facilitating an interactive and creative networking environment to form a sense of community among users.

b) **Post-incubation graduation support**

The participants indicated that they offer support to post incubatees only when the businesses return to ask for specific interventions. However, there is no formalised way of doing it. Specific interventions that they assist post–incubatees with on a regular basis are health and safety compliance issues as well as the provision of letters of good standing. Unlike the first two focus groups, the third group made little reference to the need for funding and capital requests by businesses but focused on compliance needs and support.

So, even after the programme, the incubatees can come back if they need assistance, there is that room - Participant 1FG

After the programme, you're not on your own now. If incubatees feel like they need the interventions of the incubator, we do assist and yeah, it's not like when you're out there on your own - Participant 1FG

After leaving the three to five years programme, we still have long standing relations with SMMEs on our database. We have their back when it comes to like doing certain things for them, especially coming to the occupational health and safety - Participant 2FG

Yes, we help them with Compensation for Occupational Injuries and Diseases (COID) reassessments and registration. It's done annually. So, we started with them from the beginning. We understand their highs and lows in terms of their businesses and how they need to do their declaration annually - Participant 2FG

When it comes to matters of health and safety compliance, they know we are a phone call away to assist with declarations. Should they receive contracts that

require Health Safety and Compliance (HSC), post incubatees normally come back so we can assist with compliance. The HSC file that we assist most post-incubatees with it's for compensation for occupational injuries and diseases. It's more like an insurance for the employer to have in place so that if it happens that the employees get injured on duty, they can be able to get a quick trip then from site to the private hospital or to cover employees when they get illnesses or diseases. So, this reassessment has to be done on an annual basis. These are normally class 13 companies who work on industrial sites - Participant 2FG

Should they require a letter of good standing, we do give them the letters however, it has to be in compliance with the coaching that we had given. We indicate the number of years that the business was incubated for – Participant 2FG

c) **Tracking system**

There is no formal tracking system used by the incubator to monitor and evaluate the performance of businesses after graduating from the programme. They, however, acknowledge the gap.

While they are still incubated, yes, so there is a monitoring spreadsheet that we have. We use the spread sheet for all incubators. There is a database for each centre – Participant 1FG

So, we check which stage of development they are at. We also ask them to submit their banking details to assess their growth. We assess while incubated if businesses are able to make revenues or they're growing or they're creating jobs, so it's one of those reporting KPI that we also use to report to our stakeholders. So, that is how we also monitor their growth while still incubated - Participant 1FG

Right now, we do have that system for the ones within the system and not for those that have graduated from the programme - Participant 2FG

The third focus group session showed that their services are of great importance as they help to ensure that current and post-incubatees are adhering to the best practices in all areas of compliance. This not only reduces the risk of problems or accidents occurring but also helps create a culture of ethical behaviour within your business. When companies know that their

business takes compliance seriously, they are less likely to engage in unethical or illegal activity.

Compliance helps companies avoid reputational damage. This element was highlighted by post-incubatees interviewed. They indicated that they still contact their former incubators for support in ensuring they remain compliant on tax related matters and industry regulations. Like the initial two focus group sessions, the incubators do not have a formalised monitoring and evaluation system that tracks or monitors the performance of businesses after exiting an incubation programme.

Figure 5.13 is a summary of the second main theme and sub-themes for the third focus group. The sub-themes indicated that the offerings by the incubator included technical working spaces and assistance in being industry compliant. The second sub-theme spoke to an aftercare process where businesses of post-incubatees are offered annual compliance registration assistance and letters of good standing, when required. The third sub-theme spoke to the performance tracking of post-incubatees, and participants indicated that there is no formal impact assessment tool.

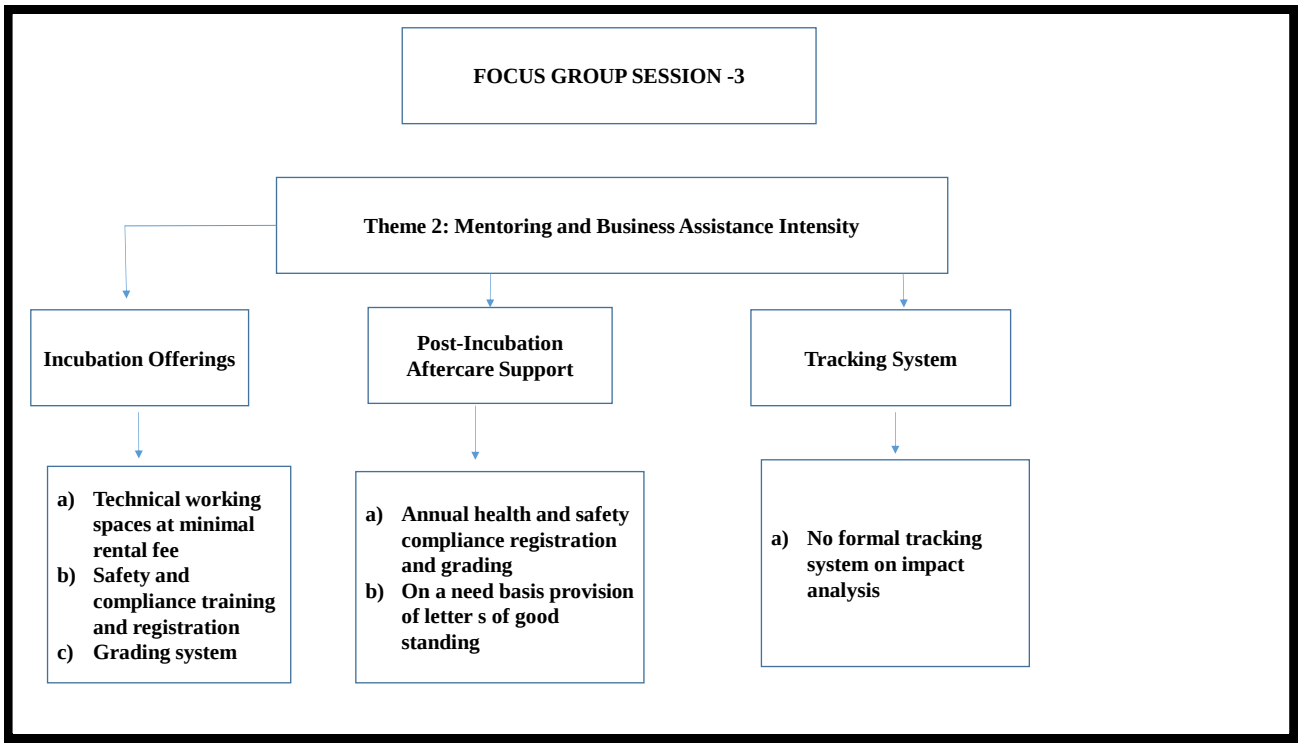

Figure 5.13: Summary of the second main theme and sub-themes for the third focus group (Source: Compiled by the researcher)

5.6 Conclusion

The objective of the research study was to explore if the influence and resources provided during business incubation processes enabled entrepreneurs to develop and grow their businesses in the market post-incubation, therefore, this chapter focused on the coding and presentation of data collected from interviews with ten post-incubatees and three focus group sessions with incubation practitioners and programme developers. The researcher highlighted and made a summary of key factors in the incubation eco-system, according to the theory of business incubation and the theory of entrepreneurial value creation. However, the views presented by post-incubatees and those presented by programme managers were different in terms of the provision of incubation offerings and expectations from post-incubatees. Mentoring and business assistance intensity emerged as a focal point for both interview and focus group sessions. The resource munificence necessity presented by both groups (post-incubatees and programme managers) was the need to survive and expand into greater markets. The participants indicated a need for post incubation support and a secured mentoring and evaluation system. In the following chapter key aspects emanating from the data collection process will be discussed and analysed.

CHAPTER 6: INTEGRATION OF EMPIRICAL RESULTS WITH LITERATURE REVIEW

6.1 Introduction

This chapter will provide a broad discussion of the data analysis that was conducted in Chapter 5. Participants in this study were post-incubatees and business incubation practitioners (managers, mentors, coaches and policy developers). The main themes and sub-themes were developed based on interactions with all participants, which are post-incubatees, incubation managers and practitioners, mentors, coaches and programme developers from Gauteng-based incubators.

The correlation of themes between the literature and empirical studies was unearthed and the linkage of themes in the empirical study between the groups of participants (post-incubatees, business incubation practitioners and programme developers) was also developed. In this chapter, the empirical research's main themes and sub-themes will be further investigated and assessed through the lenses of the business incubation theory and the entrepreneurial value creation theory. The chapter concludes with a proposed framework to analyse the performance on the influence of business incubators on the performance of incubatees' businesses after graduating from an incubation programme. This study had the following objectives, namely:

a) The primary objective was to explore if the influence and resources provided during business incubation processes and services enable entrepreneurs to exist and grow their businesses in the market post-incubation,
b) Secondary objectives of the study were to explore whether incubators equip incubatees with sufficient resources for continued existence in the market post-incubation,
c) To investigate the influence of business incubation processes on the development of entrepreneurial performance and growth of post-incubatees and
d) To develop a theoretically grounded and practically applicable framework that will address the business incubation process and service gaps identified during and after business incubation

These objectives led to the formulation of the following research questions:

a) Did the influences and resources provided during business incubation processes and services enable entrepreneurs to exist and grow their businesses in the market post-incubation,
b) How are incubators able to equip incubatees with sufficient resources for continued existence in the market post-incubation?
c) How is the influence of business incubation processes on the development of entrepreneurial performance and growth of post-incubatees?
d) How are the main business incubation process and service gaps identified during and after business incubation?

6.2 Integration of Theories and Identified Empirical Themes

The integration of theoretical lenses in Figure 2.3 explained that the two theories (business incubation theory and the entrepreneurial value creation theory) offer a unique focus that needs to be viewed as a whole. In conducting the study, the business incubation theory provided lenses for the identified inputs and outputs of the incubation process and the entrepreneurial value creation provided a foundation for the entrepreneurship trajectory of the incubatees' ability to take risks and reap the benefits after graduating from the incubator programme.

The incorporation of the two theories provided a solid foundation for better understanding of business incubation and the entrepreneurial processes. The key element, as per research, was to explore if the influence and resources provided during business incubation processes and services enable entrepreneurs to exist and grow their businesses in the market post-incubation. Therefore, the theory of business incubation guided the analysis of the five incubation steps (idea formulation, decision to proceed, resource gathering, launching of a new firm and firm development). The entrepreneurial value creation theory offered the lenses to examine the interiors of the entrepreneurial process using a two-stage value creation and appropriation framework (Mishra & Zachary, 2015). The empirical research created a link between the phases of the two theories in that:

a) The idea formulation phase of business incubation created a linkage with the entrepreneurial opportunity phase of the entrepreneurial value creation theory.

b) The decision to proceed phase and resource gathering phase of the incubation process were linked to the entrepreneurial competence phase of the entrepreneurial value creation theory.
c) The launching of a firm in the business incubation theory created a link with the entrepreneurial reward phase of the entrepreneurial value creation theory.

The first stage of idea formulation was interlinked with, and enhanced by, the formation of entrepreneurial opportunity which, according to Meckel (2014) and Ardichvili, Cardozo and Ray (2003), draw on the work of Schumpeter (1934), Kirzner (1973) and Casson (1982), who define an opportunity as the chance to meet a market need (or interest or want) through a creative combination of resources to deliver superior value. The linkage of idea formulation and entrepreneurial opportunity phases led to the formation of the theme of entrepreneurial opportunity; an attempt to understand the main elements of business incubators that contribute to the survival of businesses post-exiting or graduating from an incubation programme. Each theme presented its implications and are discussed in the following section.

6.2.1 Implications of the theme: Entrepreneurial opportunity.

Research by Lepak, Smith and Taylor (2007), Hughes, Ireland and Morgan (2007) as well as Gartner (1985 cited in Nair & Blomquist 2020), strive to consider business incubation from a value or opportunity creation perspective. The basic function of incubation is to help create value for new ventures and their stakeholders, described by three different levels of analysis to value creation (when, why and how). The understanding of entrepreneurial opportunity became clear and was confirmed in the discussions with post-incubatees where the theory indicates that, in the first stage of venture formulation, the entrepreneur, driven by the entrepreneurial intention or an aspiration for entrepreneurial reward, discovers an external opportunity (or the opportunity may precede the entrepreneurial intention).

Interviews conducted with post-incubatees confirmed the literature by Nair and Blomquist (2020:34) regarding the incubation offerings that “the basic function of incubation is to help create value for new ventures”. Interviews indicated that the entrepreneur entered a business incubation space with a business idea that required enhancement and support; the opportunity was, therefore, leveraged by the entrepreneurial resources at hand using an effectuation mechanism. Participant 4 said: “During the prototype development phase, that was the time I met Incubation B and, they incubated me and then they helped with workshops, space and the development of

a prototype.” Participant 7 explained: “It's definitely worth it being incubatees and having a mentor. It really opens a lot of doors for you and makes you think about things that you did not know.” Participant 2FG of the first focus group session said: “We are approached by the stakeholders, mining houses, and etc. for small companies needing to be coached and mentored and to find opportunities in the market.” The element of entrepreneurial opportunity confirms the literature by Akpoviroro, Oba-Adenuga and Akanmu (2021), in that the business incubation process aims to assist the entrepreneur in the opportunity identification process.

Finding 1: Nascent entrepreneurs seek the assistance of incubators during the opportunity identification and idea formulation phases of business development.

However, both conceptual and empirical research showed that, for entrepreneurial opportunity to be achieved, a level of entrepreneurial competency must be created; this element was linked to the theme of entrepreneurial competence as discussed next.

6.2.2 Implications of the theme: Entrepreneurial competence

The decision to proceed to the phase and resource gathering phase of the incubation process were linked to the entrepreneurial competence phase of the entrepreneurial value creation theory. Entrepreneurial competence, as per the theory of entrepreneurial value creation, focuses more on the circles of dispositional traits, motives, characteristic adaptations, observable skills and behaviours (Schneider & Albornoz, 2018). Based on the empirical study conducted in this research, a linkage between the second and third phases (decision to proceed and resource gathering) of the business incubation process and the creation of entrepreneurial competencies, as alluded to in the theory of entrepreneurial value creation, was established.

According to the data gathered from interviews, focus groups and literature, entrepreneurial opportunity is reconfigured to develop an entrepreneurial competence. Therefore, an asymmetric advantage for the entrepreneur and the entrepreneurial resources gained by post-incubatees were evident in innovation and prototype development spaces, although the resources acquired were not always in a monetary format as specified by Participant 7: “Those lessons are very important for an entrepreneur because some people are not well educated on business aspects. But when you get those lessons, they go a long way.” Participant 4, further gave a description of the observable skills and support received: “There are so many things that the incubator helped with, their business development process was of great help, and they also assisted to develop

my business plan […], they provided financial training, market research workshops, […].” Other participants also indicated the following:

> *Yes, we did receive training on handling business finances, how to manage the credits and debits of the business- Participant 3*

> *It did benefit indirectly because of I was not new in the business. The coaching assisted me in terms of, you know, putting discipline in myself, specifically so that I said I needed to do certain things differently. For example, when it comes to finances, I was reckless to be honest you know because there was no difference between my personal finances and business finances, and it had deep implications - Participant 6*

Focus group sessions conducted for this study confirmed the approach in that assessments are done to understand the potential incubatee’s business stage. Participant 1FG of the second focus group session explained: “As an incubator, our normal recruitment process requires the business to be registered and have a potential viable product or idea, but there's also another way, which is through our accelerator programme.” Participant 1FG of the first focus group alluded to the fact that they categorise their new entrants, she said: “The boarding of new incubatees takes place after they have completed the four to five documents. With the documents we establish whether they are a category A or B. A category A is classified a micro enterprise with minimal experience and less market know-how. A category B is a business that has been running but struggling to be market compliant.”

Aspects of creating an entrepreneurial competency were clearly infused by the business incubation process through a monitoring and business assistance intensity approach as per the business incubation theory, which included skills development approaches that would be gained through business mentoring and market positioning. The element of entrepreneurial competence was broken into sub-themes and are discussed as follows:

a) Business mentoring and coaching (sub-theme)

According to Jones and Smith (2022), coaching and mentoring are supportive, developmental, learning relationships where support is provided to achieve personal outcomes and to realise potential. As per discussions with post-incubatees and incubation practitioners, business

incubation support processes took the form of new venture creation training; being coached and being trained using the accelerator training programme.

Being in an incubation space, which is located inside or within a large business industry space such as a mining, innovation and or construction hub, led to an entrepreneurial competence which also enabled the post-incubatees to position themselves in the market. Participant 6 shared his views on the mentoring and coaching received and said: “The assistance I got was actually incidental because they actually assisted me in terms of the consulting business, bookkeeping training actually assisted my business to progress.” Participant 7 indicated: “The incubator paid for our post –graduate certificate. We attended classes at the University of Pretoria. So, unfortunately, they are not doing it anymore, but they should, because we had finance, marketing, business modelling training absolutely everything, and at the end of it, we received a diploma certificate from the University of Pretoria, which was absolutely fantastic for the company’s profile.”

There was also an appreciation from other post-incubatees of the workshops that mentors conducted as Participant 4 explained: “It did help because my mentor conducted a lot of workshops and networking sessions.” The aspect of the importance of business mentoring and coaching was further confirmed through focus group sessions held in that the coaching provided was of a structured approach. Participant 1FG of the first focus group session said: “[…] we have programmes such as new venture creation and quality management systems, so this teaches them the basic fundamentals of running a business and also being able to deliver quality services or products to their customers.”

Participant 2FG of the second focus group session further said: “As an incubation hub, we offer co-working spaces, development centres, linkage to markets, research and assist with the development of prototypes and commercialisation.” Participant 5FG of the second focus group session further explained: “Mostly the training provided is based on the accelerator programme, which is meant to match entrepreneurs with top industry experts who, through mentorship, help them develop the core skills needed to develop innovative ideas into successful businesses.”

Therefore, the fundamentals of mentoring and coaching directed the cognitive behavioural approach in which incubatees positioned their businesses in the market and how they were later received by the market after graduating from a business incubation programme. The

element of business mentoring and coaching confirms the literature by Safdar and Qamar (2023) as well as Jones and Smith (2022); coaching and mentoring nurture professional and personal development by enhancing performance and work satisfaction in a business incubation space.

Finding 2: The provision of a structured business incubation mentoring and coaching approach enhanced the incubatees' business development skills and the confidence to position themselves in the market.

The element of business mentoring and coaching led to the development of the sub-theme on market positioning which is discussed in the next section.

b) **Market positioning**

Research by Hackett and Dilts (2004) as well as Nair and Blomquist (2020), indicate that the window of opportunity that is available for businesses in the current market is limited and the incubator should enable their start-ups to address this by having incubation processes that reduce their time to market. To assist in market positioning, business incubators provide value-added services like access to law companies, patenting and intellectual property protection, business and technology consultants, marketing businesses and basic financing.

Market positioning enables new business ventures to move fast to exploit a market opportunity or even to help them be acquired by a larger firm. Positioning of a business in the market was seen in the ability of entrepreneurs to leverage market gaps identified and manufacture products required in the market, like the post-incubatee - Participant 9 said: "I was working with disabled people, and they couldn't use normal sanitary wear, so I had to manufacture the whole range comfortable sanitary wear based on their different stages, I think that's quite important." The creation of a sense of novelty is seen in their ability to realise value in new products that represent something different or innovative. A product that is functionally the same as many others but designed in a fresh, innovative way may also attract new customers (Hilmersson, Johanson, Lundberg & Papaioannou, 2021). The market positioning element was also highlighted by other post-incubatees:

If you're selling somebody else's products, you've got no power. So now I've started making steel tables. What I've seen is that we need to create our own market - Participant 3

We are targeting global clients, so that is why we're not too focused only on locals in such way that when you go to our page now, most of the companies that are there, are companies that are coming from overseas- Participant 5

We have big things happening, in 2021, we signed up a business in Australia and a license- Participant 8

Focus groups held in this study also alluded to their efforts in the creation of market linkages, Participant 4FG said: “Incubator A has partners with quite a number of companies or businesses, and which also fund business development and so you look at the type or the calibre of incubations that we have, you would not have an issue with access to markets in the incubator space. Because those people are our partners and are already there.”

Participant 3FG of the first focus group session said: “There’s a Township Economy Expo which we usually give and negotiate with these partners to say can they (incubatees) exhibit in your respective Expos. There is deliberate efforts in as far as an intervention is concerned, and market linkage access that speaks to directly linking incubatees to market in whatever industries that they are in.” Direct linking of incubatees to the market created market differentiation for the post-incubatee. An ideal market position helps to promote why the brand was unique. It also assisted them to capture a bigger market share.

Entrepreneurial competence as a theme has also indicated the ability of entrepreneurs, after graduating from a business incubation programme, to survive the challenges that presented themselves in the market, like the effects that came with the COVID-19 pandemic; product or service diversification became key to survival. It became evident in the data collection process that challenges were inevitable. There was a post-incubatee who saw an opportunity in the market to locally manufacture steel tables in his region of operation during a time when his core engineering business was on a declining slope. The same applied to the green energy business that re-invented their water purification machine to cater for a bigger market in Australia**.** Participant 6 explained: “We signed up another business in Australia, to do the manufacturing of the core components as most of the intellectual property (IP) is laying locally and then we license out the technology.”

However, mentoring and business assistance intensity (mentoring, coaching and market positioning) in the creation of incubatee's entrepreneurial competence was met by market challenges which led to the formulation of a sub-theme on barriers. This sub-theme is discussed as follows:

c) **Barriers**

Research by Vermunt, Negro, Verweij, Kuppens and Hekkert (2019), listed barriers for nascent entrepreneurs such as: lack of partners and low availability of materials, higher dependence on external parties, lack of information exchange between supply chain actors, conflicting interests between actors in the supply chain, lack of consideration of circular design from supply chain actors, bad re-use practices or a reluctance from third parties, low virgin material prices, lack of consumer interest and resistance from stakeholders with vested interests.

As alluded to under the sub-theme on barriers in section 5.2.4, the post incubatees are experiencing challenges relating to the dominance of multinational companies and competition from companies in the same industries. Participant 4 of the interview session with post-incubatees indicated: "Competition is from bigger business and our businesses are not adapting to the online world […]." Participant 3 further explained: "…. because this market doesn't want us in the engineering industry […], because it is dominated by rich companies, and they've been doing these businesses for years and they are going to do these business for years to come because they are still in control of the industry. So, we need to look at other places and other markets."

Participant 3 said: "The business is now 7 years old, and I'm telling you now, all of these multinational companies are talking baloney. They don't want to help us. They don't want to allow us in, even if they allow us in, they give us small little crumbs and they also look at you with a magnifying glass, looking for your faults." This aspect on entrepreneurial barriers confirms literature by Khan (2022), in that SMEs face multiple barriers restricting their survival and development. The participants indicated that penetrating into the local markets was a challenge and therefore found opportunities for their business ideas in international markets.

Finding 3: The dominance and competition from multinational businesses make it difficult for incubatees to enter the local market.

The regulatory requirements in South Africa, such as the procurement bill, as alluded to by Quinot (2020), are also creating a lot of bureaucracy for small businesses to enter into industries such as engineering, mining, construction and high-end innovative markets. Bureaucracy, according to Madsen, Mikkelsen and Moynihan (2022), connote a compliance burden. Participant 1 of the interviews with post-incubatees explained: “There's bureaucracy when you need funding and have no collateral capital.” Participant 8 described her challenges in relation to the payment of patents: “Every year we have to renew patents and it costs more, I need close to R500,000 to service those patents and to keep them alive for another year.” However, to the contrary, focus groups have indicated that they assisted in mitigating these challenges by helping incubatees with market and industry compliance:

> *Compensation for Occupational Injuries and Diseases (COID) reassessments and registration. It's done annually. So, we started with them from the beginning. We understand their highs and lows in terms of their businesses and how they need to do their declaration annually - Participant 2FG*

The other major challenge experienced by post-incubatees is the lack of capital to expand their businesses. The bureaucracy experienced by post-incubatees confirmed the literature by Saleem and Atiqin (2023), stating that start-ups face different challenges during each stage of their life cycle. It has been observed that, during the early stage, one of the major problems faced by start-ups is acquiring financing. Out of the many constraining obstacles present in a business environment, the financial constraint was found to be the most robust and consistent one, especially in the South African context with our low growth and high unemployment rate. Small businesses that can provide more jobs and economic growth are provided with limited access to investment capital.

Post-incubatee, Participant 4, put forward a consideration for incubators to contemplate offering incubatees and post-incubatees an opportunity to tender for business opportunities: “They should consider the financial part of an entrepreneur as the most important thing, for some entrepreneurs are very experienced and they're very good in what they're doing” Other post-incubatees had to divert from their original business ideas that they were incubated for and had to venture into other industries. Participant 6 said: “But the business that I wanted to do didn't actually materialise due to lack of funds for raw material, but I ventured into a different industry.” Other post-incubatees

expressed their challenges in relation to lack of funding. Some post-incubatees even made proposals of how the funding challenge can be mitigated:

> *We've had funding from the incubator, but it was small. One of the bad things about incubator B was, not understanding the technology and the people who were adjudicators on the panel did not understanding what they're looking at, we applied for grant funding for a million Rand. We were given R500,000 to develop this machine, which from 2013 to now has a cost in the excess of 13 million – Participant 7*

> *Your goal should be that at the end of the day, this person must have benefited financially in terms of growth of their business – Participant 2*

> *You know they can support you to do this and that, comply with this and that, but ultimately you get big contact. Since the business is a start-up and you don't have money, believe me, banks will not consider you. That was my experience with the incubator – Participant 6*

> *There must be an opportunity for us to invoice, meaning that the incubator must give us work. And when I teach you how to read financial statements, if I'm not going to make sure that you get the work and you are invoiced so that you can be able to read the financial statements - Participant 2*

> *What entrepreneurs need is just the business. We do not need you to give us money. Incubators should give us the business then we will make money – Participant 6*

Focus group sessions for this study indicated the magnitude of this challenge and their limitations in assisting with funding requirements. Participant 3FG from the second focus group session of programme developers and mentors explained: “There are not many players in this space in South Africa. Hence, we could sometimes provide funding. In the past we've managed to have good collaborations. However, there has been limited to no funding over the past few years.”

Participant 2FG from the second focus group session explained: “In my perspective, it's been that the hub over the last few years, it was one of the few to go into the space of innovation and technology and we were then operating in a space that's a cut above the rest, we were able to then get funds where the funding was mandated for these projects.”

Participant 1FG also alluded to the same challenge: “Unfortunately, funding is quite tight now, but we're trying to leverage off our partners to see how we can recapitalise our internal fund. It's very important to have funding for prototype development.” The lack of funding opportunities and consideration of small businesses is a consistent challenge for all post-incubatees interviewed.

Bureaucracy, according to interviews with post-incubatees, came in the form of industry compliance and the registration of new innovations and patents. Participants indicated that systems in South Africa are not user friendly, and they come at a high cost. Bureaucracy, according to interview participants, also came in the form of lack of funding and lack of access to capital. Focus group participants indicated that they would like to assist incubatees with acquiring capital but are experiencing challenges due to current economic conditions.

Finding 4: The regulatory requirements in South Africa can create bureaucracy which negatively affects businesses after they leave the business incubation process.

Finding 5: There are limited funding opportunities for nascent entrepreneurs to advance their business development needs after graduating from a business incubation programme.

Finding 6: The challenge of a lack of funding for capital or for market penetration remains a key hindrance for post-incubatees in South Africa.

Research, as indicated in Chapter 2 (Section 2.4.1) of the literature review, suggested that competence reflects the ability to effectively interact with the environment (Kemp, 2013). The post-incubatees and incubation practitioners indicated that, within the South African context, it is important to interact with stakeholders and potential clients to become more effective and competent. Competence reflectance presupposes the ability to produce desired resources and avoid undesired business outcomes, events and thus, emphasises the importance of human agency. Entrepreneurs’ goals, strategies and visions are reflected in their pursuits (Rauch, 2020). Competence incorporates knowledge, skills and capabilities (Bratianu, Hadad & Bejinaru, 2020). More specifically, gaining entrepreneurial competence entails entrepreneurs to attain the capability to identify and follow new and unique prospects and the ability to acquire and utilise

the resources needed to be able to do so effectively (Dehghanizadeh & Tavakoli Alahabadi, 2024; Erikson, 2002).

To become and remain entrepreneurial requires an ability to sense and adapt to uncertainty; this ability is of critical importance for entrepreneurship, as it allows entrepreneurs to become dynamic, flexible and self-regulating (Haynie, Shepherd & McMullen, 2009). The degree of entrepreneurial competence is evident in that post-incubatees' businesses are still operating under their original registration although some have diversified into other industries. However, the element of entrepreneurial competence came with barriers; post-incubatees are experiencing other fundamental challenges in the market.

In confirming the aspect of entrepreneurial competence, post-incubatee Participant 2 said: "Currently I've employed 200 people and the business when I joined the incubator I had, I think about 30 people." Participant 7 said: "[…] there were no losses that I actually incurred by associating myself with the incubator. I now have, additional business contracts and additional revenue." Participant 5 reverberated the same sentiments: "I managed to employ about five employees so far and we still need more staff because there's a lot to do on the platform." Participant 1 also confirmed the literature by demonstrating the level of business expansion: "[…], the business has been operating for three years, I translate, and I do more engineering work." The element of entrepreneurial competence was further confirmed by other post-incubatees:

> *It did help, because without that Incubation, I don't think I would be where I am today. We also have an online site whereby people can shop groceries, they can buy takeaways from Spar, McDonald's, KFC everywhere using our platform – Participant 5*

> *We have big things happening, in 2021, we signed up a business in Australia and a license. So, where most of the IP is laying locally, we license out the technology - Participant 8*

Focus groups in this study have confirmed the literature about the importance of entrepreneurial competence development. Research suggests that "competence reflects the ability to effectively interact with the environment" (Zheng *et al.,* 2021:23), by indicating their commitment in this aspect of entrepreneurial competence. Participant 4FG of the first focus group session said: "If Incubator A is invited as an incubator to come and exhibit, we go to our database and look for an applicable SME (current incubatees and post-incubatees) in an applicable industry to exhibit

there. I mean with our partners, I don't know if I'm at liberty to mention them but if they do have a standing exhibition stand, we extend it to our incubatees and post-incubatees to ensure there is visibility and we do coach them (incubatees) on how to present themselves effectively. You might find that somebody is technically inclined and not really a strong communicator."

Therefore, the results of the empirical research have supported the literature that states that "entrepreneurs' goals, strategies and visions are reflected in their pursuits" (Rauch, 2020:19). To become and remain entrepreneurial requires an ability to sense and adapt to uncertainty; this ability is of critical importance for entrepreneurship, as it allows entrepreneurs to become dynamic, flexible and self-regulating (Indrajith *et al.,* 2021). All post incubatees interviewed indicated a high degree of entrepreneurial competence (value driver).

The basic key element of the influence of business incubation on the performance and success of the incubatee's business after graduating from an incubation programme lies in the ability to successfully mentor and coach nascent businesses and the competence to create a presence in the market.

Finding 7: Despite the many challenges that post-incubatees face outside an incubation programme, they have marginally managed to find ways of ensuring continued existence of their businesses.

6.2.2.1 Sub-theme: Tracking systems

There is no clear tracing and tracking systems to determine how they (post-incubatees) are sustaining their business continuity. The lack of tracking systems concerning post–incubation business performance confirms the literature reported by Bose, Kiran and Goyal (2019:18) as well as Wolniak, Grebski and Skotnicka-Zasadzien (2019:32), as indicated in Chapter 1 (Section 1.3), that, "although there is some evidence of showing the influence of business incubation services globally, there is limited information of whether businesses survive on their own after graduating from an incubation programme."

The latter observation of the lack of tracking systems of post business incubation performance was further confirmed in the focus group sessions held as well as the interviews conducted with post–incubatees for this study. Theme 2 of the focus group sessions, which is on monitoring and business assistance intensity under the sub-theme: tracking systems, indicated that all business

incubation practitioners have confirmed that they do not have a formal system on tacking, evaluating and analysing the performance of post-incubatees' business performance. The lack of monitoring systems was evident under the sub-theme on tracking systems where all participants indicated that they have no tracking systems. Participant 1FG mentioned: "There hasn't been a formal way of tracking them." Participants 2FG and 5FG expounded:

> *Right now, we do have that system for the ones within the system and not for those that have graduated from the programme - Participant 2FG*

> *After incubatees graduate from the incubation programme and we do keep in touch with them to ensure that they know how to be sustainable, it's something we still have not, in my opinion, fine-tuned entirely, but we keep the doors open because we have an ecosystem that involves stakeholders, suppliers, the network is very unique and us, as mentors and managers of the programme answer to stakeholders who are board members as well – Participant 5FG*

Post-incubatees indicated that they too do not have formal systems to track their business' performance (daily, monthly and annual performance trends). Implementers of the programme also do not have tracking systems to measure the growth and sustainability of post-incubatees' businesses after graduating from the programme. Participant 4 said: "The income that we generate that shows that we are growing, or we are on the same level or you're going down. I use financial statements mostly because I cannot use the number of jobs created as they fluctuate and are not permanent. There is no special system just the bank statement." Participant 7 also stated: "I use bank statements and also, I use number of customers, new customers that I actually get, there is no special software." Participants 3 and 5 also indicated the same trait:

> *Bank statements are the only thing and management accounts, such as invoices. But I also check the number on users on our business platform – Participant 5*

> *No, we do not. We do not have a system that shows that we're doing well or not as yet but in the future, definitely will have to have something like that – Participant 3*

The literature in Chapter 3, indicated that there is still a lack of support systems, tracking mechanisms and proper monitoring systems to deal with mentorship in an incubator setting (Rens, 2021). The lack of business performance tracking systems was also confirmed through

interviews held with post-incubatees and through focus group sessions held with incubation practitioners and programme developers in this study. Therefore, the assumption can be made that monitoring and evaluation might be an omitted phase in both the business incubation process and in the entrepreneurial value creation process. Post-incubatees have indicated that they have no systems to track their growth trajectory in terms of their number of employees, contracts for provision of goods and services, turnover and management of accounts. The incubators also indicated that they have no systems in place to track the performance of nascent businesses that have graduated from their business incubation processes.

Finding 8: Post-incubatees lack business monitoring systems to record and measure the performance of their businesses.

Finding 9: Business incubators lack systems to track the performance of post-incubatees' businesses.

6.2.3 Theme: Entrepreneurial reward

The theme of entrepreneurial reward, the launching of a business from the business incubation theory, created a link with the entrepreneurial reward phase of the entrepreneurial value creation theory. Once relevant resources have been gathered and an element of entrepreneurial competence is achieved, the incubatee should be in the last phase of an incubation process which leads to the launching of a firm, resulting in the graduation from the incubation process. Lose, Nxopo, Maziriri & Madinga's (2016) research in Chapter 2 (Section 2.3.5) indicated that business incubation performance is measured in terms of the client business's growth and financial performance during the time they graduate from the incubator. The author further outlined that operationally, there are five mutually exclusive outcomes or steps at the completion of an incubation process. The business:

a) Is surviving and growing profitably.
b) Is surviving and growing and is on a path towards profitability.
c) Is surviving but is not growing and is not profitable or is only marginally profitable.
d) Operations were terminated while still in the incubator, but losses were minimised.
e) Operations were terminated while still in the incubator, and the losses were considerable.

The triangulation of data through interactions with programme developers and implementers (incubation practitioners) was clear in adhering to the five steps as indicated in literature (sources consulted) and this was further confirmed in the interview sessions with post-incubatees conducted in this study. Historically, literature has suggested that the first three outcomes are indicative of post incubation success and the last two outcomes are indicative of failure (Choto, 2015), as per Chapter 2 of the literature review.

Entrepreneurial reward was further confirmed through interviews with post-incubatees who indicated that their businesses are surviving and growing and are on a path towards profitability. Participant 7 explained: “Definitely I would say I am only experiencing some marginal profitability because there were no losses that I actually incurred by associating myself with the incubator. I now have, additional business contracts and additional revenue, obviously.” Entrepreneurial reward was further alluded to by Participant 5: “I managed to employ about five employees so far and we still need more staff because there's a lot to do on the platform. Here in South Africa and Africa as a whole, if you go to our social page, you'll find our mission statement does state that it's a South African social network that aims to bring businesses together, governments and all from all over the world.”

Focus groups in this study confirmed the linkage of launching a firm and entrepreneurial rewards as they follow a systematic approach in the graduation of post-incubatees. Participant 1FG said: “So, we distinguish between exiting and graduating incubatees. Our goal is to graduate the companies that means they've successfully completed the programme and that they can stand alone in the big world, without the support of an incubator, whereas exiting is normally a case where, for various reasons, the incubator or the entrepreneur have parted ways. So, that means they haven't successfully completed the incubation programme. It can be for a variety of reasons, sometimes the entrepreneur is no longer interested in their project, or they have full time employment somewhere or non-performance.” Participant 6FG further said, “We have bookkeepers that would then do the books for the companies and then we review it as well [...] to make sure that there's no biasness in us graduating companies.”

The post-incubatees and focus group members who participated in the study demonstrated that there was a systematic process followed before they could graduate from an incubation process. However, on a contrary, this is not reflective in their entrepreneurial rewards post-incubation. Post-incubatees are not earning any profits due to the economic challenges they are

experiencing. The researcher considers that Finding 9 can indicate that post-incubatees might have graduated from the incubation programme at stage 3 where their businesses were surviving but not growing and were not profitable or were only marginally profitable, as per the outcomes set out in the theory of business incubation. An assumption can be made that incubatees were pre-maturely graduated from the programme.

Finding 10: The linkage between graduating from a business incubation process and entrepreneurial reward indicate that post-incubatees' businesses are surviving but do not earn sufficient profits.

6.3 Theme: Monitoring and business assistance intensity

The theme monitoring and business assistance was looked into through the lenses of focus group session discussions and interviews with post-incubatees. The second objective of the research study was to explore whether incubators equip incubatees with sufficient resources for continued existence in the market post-incubation.

Given the data collected through empirical research, the element of monitoring and business assistance was investigated through the lenses of business incubation theory and the development of the monitoring and business assistance intensity theme. The theme is a cross-over theme for both interviews with post-incubatees and discussions with focus groups (incubation managers, coaches and programme developers). This theme created a base in creating an understanding of the incubator's efforts in the enhancement of the incubatee's business. However, the theme also has contrasting elements between post-incubatees and incubation managers. It assesses how a business incubator provides inputs into a nascent entrepreneur's business and in the same light it assesses how these inputs were viewed and received by post-incubatees.

According to Hackett and Dilts (2004), as well as Ayatse, Kwahar and Iyortsuun (2017), the incubator is an entrepreneurial business that performs a bridging function by sourcing and macro managing the innovation process within emerging, promising and intermediate potential businesses, infusing them with resources at various developmental stage-gates while containing the cost of their potential failure (Kibuch, 2016). Therefore, the incubator functions as a place where resources can be rationally invested in stages to assist selected incubatees that fail quickly and often fail at various stages of the development path to success or terminal failure. Because

most incubators do not take equity positions in most incubatees' businesses but rather rely on rental income, income from services rendered as well as public and private subsidies, incubators are able to select and nurture businesses that have a greater likelihood of failure (Hackett & Dilts, 2004; Iacono & Nagano, 2017).

The element of mentoring and coaching was also highly evident in the focus group sessions where Participant 2FG of the first group said: "As an incubation hub, we offer co-working spaces, development centres, linkage to markets, research and assist with the development of prototypes and commercialisation." Participant 2FG of the third focus group session indicated: "Yes, we do have technical workshop spaces in our incubator, and it is offered to incubatees requiring working spaces. Incubatees pay minimal rent for technical working spaces, this facility support is also offered to post-incubatees at a fee." Furthermore, Participant 4 said: "It helped with workshops, space and the development of prototype." The literature in Chapter 2 (Section 2.3), indicates that business incubators provide start-up and fledgling companies with hands-on business and management assistance, affordable space and shared support services (Salem, 2014).

Business incubators are an alternative to the office at home or long-term lease. Business assistance intensity became apparent in the collection of empirical data as incubation practitioners indicated the level of assistance intensity in their development and the implementation of programmes such as the development of health and compliance training for current incubatees and training and assistance in the development of prototypes in green technology, construction, engineering and digital animation spaces. This led to a sub-theme which confirmed incubation offerings as demonstrated in Figure 2.5 of the literature review in Chapter 2.

A key element of the theme, namely monitoring and business assistance intensity, led to the development of a sub-theme of incubation offerings which solidified an assessment on whether incubators are tools for success in reducing the failure rate of small businesses. Mentoring and business incubation assistance led to a more detailed discussion of incubation offerings, and these will be discussed in the next section.

6.3.1 Sub-theme: Incubation offering

Incubation practitioners indicated that they offer technical working spaces at a minimal fee, safety and compliance registration and training, business grading and support systems as well as

infrastructure for prototype development (Mkhwanazi, 2023). In terms of technical skills, incubatees are taken through a NQF level 2 new venture creation and business accelerator development programmes (Nyamurima, 2023). As compared to ordinary nascent entrepreneurs, as defined in Chapter 2 (Section 2.3.5), who, according to Dzingirai (2021), are constantly faced with challenges of shortage of raw materials, non-availability of power, inadequate working capital, limited market etc. The training aims to enhance their developmental skills (Nyamurima, 2023).

In addition to the problems enumerated above, the micro enterprises face several other additional problems such as inefficient management and the burden of local taxes (Dzingirai, 2021), whereas incubatees have access to a suitable place, in terms of facilities and expertise, to address their needs and develop their business ideas, transforming them into maintainable realities (Hewitt & Van Rensburg, 2020).

As per the literature review in Chapter 2 (Section 2.3.4.1), ultimately, regardless of how an incubator is categorised or described, business incubation involves adopting a dynamic process required for supporting emerging small businesses during periods of uncertainty (Buys & Mbewana, 2007; Ndabeni, 2008). The core of why business incubators exist, relates to reducing business failure inherent in starting a new business (Millette, Hull & Williams, 2020). Participant 1FG from the focus group session with incubation managers said: “From a monitoring and evaluation department, we hold monthly and weekly meetings with our current incubatees to identity areas of improvement and assistance.” Other focus group participants alluded to the same aspect:

> *We help them with Compensation for Occupational Injuries and Diseases (COID) reassessments and registration. It's done annually - Participant 2FG*

> *With our criteria is obviously we work within particular industries, which are the renewable energy, climate innovation, bio economy and the smart industry which is the digital economy - Participant 5FG*

> *Communication in business can sometimes be a different language all together with industry jargon and terms. We assist incubatees to explore strategies of effective speaking, negotiating and communication in a business environment – Participant 2FG*

Under quality management system, one of the things incubatees are taught is to be able to understand document policies and work instructions for their businesses. The aim is to do everything with quality in mind - Participant 5FG

[….] incubatees are mentored on marketing and sales strategies, finances and financing a new venture and as well as business plan writing skills – Participant 1FG

These businesses' package services are intended to effectively address the challenges faced by SMEs. These challenges may include lack of access to pertinent information relating to how an SME can access start-up capital, as well as how to effectively run a formal business (Campbell, 1989, cited in Buys & Mbewana, 2007; Ndabeni, 2008). Business Incubation offerings are closely linked to the intensity of their business assistance, which is discussed in the next section.

6.3.2 Implications of the theme: Monitoring and business assistance intensity

According to Kemp (2013), monitoring and business assistance intensity is characterised by dimensions of the length of time assistance that was provided, the comprehensiveness of assistance provided and the degree of quality of the assistance provided. Contrary to the sub-theme on incubation offerings, post-incubatees, under the theme of mentoring and business assistance intensity of the interviews, indicated a dissatisfaction in the processes followed by incubators when doing a detailed needs analysis of incubatees when they are signed in as this will determine the key drivers for growth and the best opportunities and/or solutions to resolve issues or improve productivity and performance.

The lack of industry-specific mentors was highlighted. Participant 2 was adamant in saying: "You can't be putting me in the same industry with someone who does not understand the importance of having a website or aspects of growing a business. Business stages are different […], there, I felt that people that should be running these programmes should be people that also understand the pain of running a business." The level of business assistance intensity was further echoed by Participant 3 in saying: "Incubators needed to create a transformation, as I was already in business. The coaching needed to teach me more on the creation of new markets." The degree to which support was provided to post-incubatees in the early stages of development in an incubation process highlighted that the intensity of the support given was less in terms of the expectations from incubatees.

Finding 11: There is a lack of experienced industry-specific mentors during the different stages of business incubation.

Industry-specific mentors give insight into the industry as a whole, such as research, development or key changes and provide solutions to assist in penetrating the industry (Hasbi & Dewi, 2024). This lack of experienced industry-specific mentors (Finding 11) is contrary to the results produced by incubation managers, mentors and policy developers under the cross-over theme of monitoring and business assistance intensity of the focus groups. Business incubation managers, mentors and policy developers have indicated that clear development plans are in place and experienced mentors are appointed to coach incubatees. Business incubation was seen as a fundamental tool required to bridge gaps that existed between large and small businesses (Rogerson & Rogerson, 2021). Through this process of monitoring and business assistance intensity, large businesses were encouraged to engage with small businesses by providing mentorship and access to market opportunities. However, there is still a lack of support systems, tracking mechanisms and proper monitoring systems to deal with mentorship in an incubator setting (Lose, 2021).

There is a lack of solid mentor-mentee relations as some post-incubatees interviewed indicated that mentors were constantly changed. Participant 3 said: “If it was a one-on-one mentoring and coaching it was going to be better because you find that if you're in a group they wouldn't even know what type of funding you need. They kept on changing mentors and coaches, so, you don't know who you are dealing with. I just needed a single mentor to help my business.” Participant 5 elaborated: “What I think would actually benefit businesses is if those business are actually given one mentor and one approach where there’s maybe a mentor assigned to a business and then you know that this mentor is assigned to my business and if there's any question I will then talk to this person and then if there's any information I want, I can talk to this mentor. So, that person also knows that he or she is actually monitoring your business. But now I think, they're just using a blanket approach [...]. Also, maybe the issue of communication was never quite correct. Communication was a major problem, as assigned mentors are not always available when you need them.”

There were no contradicting views regarding the element of mentor selection as the focus group sessions confirmed this challenge when selecting mentors by saying that there is no ratio to the number of incubatees assigned to one mentor or business coach. Participant 2FG of the first focus group said: “There is no ratio on how many businesses a mentor can assist at a time.”

During mentoring, mentees receive training, direction and advice from mentors within a specified period and this leads to the formation of a strong relationship. Generally, mentors are expected to have widespread knowledge and experience, while incubatees are focused on learning only specific skills. Mentors are expected to act as a resource to mentees; to orientate them on various aspects of business development, to continually support them in building their self-esteem and confidence and to handhold them in approaching various investors and markets. Therefore, incubators are pivotal in facilitating mentoring relationships between the incubatees and industry specialists/mentors and in contributing to mentoring experiences by providing structure, guidelines and policies.

The incubator is the unit of analysis while incubation outcomes are measured in terms of incubatee growth and financial performance at the time where the incubatee exits the programme. The aspect of mentor selection is confirmed by literature from Zainol and Salam (2021). They state that mentoring is a process involving an experienced person (mentor) who guides a usually younger individual (mentee) with the aim of teaching, guiding, supporting and facilitating professional growth and development. The need for experienced industry-specific mentors showed a misalignment between the expectations of post-incubatees and what incubators actually provided. Therefore, the theme led to the following findings: The post incubatees and business incubation practitioners expressed their limitation of the capabilities of some mentors as there were many mentors who lacked the experience in the industries assigned to them.

Finding 12: Many of the assigned mentors did not understand their coaching role for incubatees to realise the full value of their entrepreneurial development process.

Finding 13: The ratio of mentors to mentees is too high.

6.3.3 Implications of sub-themes: business compliance (interviews with post-incubatees) and incubation offerings (focus group sessions with incubation managers)

Sub-themes on business compliance (interviews with post-incubatees) and incubation offerings (focus group sessions with post-incubatees) have indicated that incubatees and post-incubatees are well supported on industry compliance requirements such as tax regulations, health and safety support and South African Bureau of Standard compliance. These are generally services that they might have struggled with outside a business incubation programme as indicated by

Participant 3FG of the third focus group session: “Yes, we help them with Compensation for Occupational Injuries and Diseases reassessments and registration. It's done annually. […], we started with them from the beginning. We understand their highs and lows in terms of their businesses and how they need to do their declaration annually.” Participant 2FG of the first focus group session said: “When it comes to matters of health and safety compliance, they know we are a phone call away to assist with declarations.” Post-incubatees confirmed the literature by indicating their appreciation of this service:

> *I actually benefited, for instance when they will have SARS and then I will be interested – Participant 7*
>
> *We did get our SABS approval –Participant 9*
>
> *We even registered with CIDB, what happens is you are graded based on the kind of contract you get –Participant 3*
>
> *The business was ISO 9001 accredited. - Participant 3*
>
> *I have been taught how to prepare legal documents how to draft contracts - Participant 2*

6.3.4 Implications presented by sub-theme on incubatee selection and sub–theme on processes

Furthermore, the empirical study has shown that there are several trials affecting the successful influence of business incubators on the performances of post-incubatees’ businesses after graduating from the programme. The trials are evident under the theme of selection performance; focus group session and mentoring and business assistance intensity with particular focus on the implications presented by sub-themes on incubatee selection (focus groups) and processes (interviews with incubatees).

The selection performance and process flow indicate that some of the findings emanate from the early stages of incubation where participants mentioned challenges relating to needs analysis and psychometric assessment of potential new incubatees. Other challenges include the development of an incubation support system based on the level of entrepreneurial competency and development as well as the possibility of serial incubation in pursuit of opportunities to enter

into greater business contracts. Participant 2 of the interviews with post-incubatees indicated: “The coaching and mentoring lacked an assessment on the business and needs thereof.”

Participant 3 of the interview process further expanded on the matter: “The relationship should be based on the status of where you are as an incubatee. For me, I would say; the incubator must understand the needs and the status of the business to be incubated. They needed to create a transformation, as I was already in business. The coaching needed to teach me more on the creation of new markets.” It was also apparent in the discussions with Participant 5: “[….] the issue of communication was never quite correct, which is one of the things that, [….], communication was a major problem.”

> *As assigned mentors are not always available when you need them - Participant 4.*

Focus groups sessions with mentors and programme implementers shared contrary views; Participant 2FG of the first focus group session said: “We have wellness, personal development aspects where we help them with psychometric assessments at initial stages, but we also offer it when the post –incubatees return seeking further assistance.” Participant 3FG of the second focus group session shared an analogous approach and said: “We do a gap analysis, which then informs the developmental plans because our approach is not a blanket approach. It is a customised approach for us to help you with the pressure points that you need” Programme developers, implementers, coaches and mentors all shared that their approach in ensuring that mentoring and coaching systems are in place:

> *We do assessments and registrations and narrow it down and at times we will do site audits and also scrutinise the integrity of the information that we've got from the on boarding process. This is something we do deliberately to say, indeed are you where you say you are? We have to ensure that all that information is collected– Participant 1FG*

> *We are an ISO certified Incubation. Everything that we do is documented and agreed upon prior to any projects being implemented. We've got clear implementation plans - Participant 2FG*

Various departments within the programme will prepare what we call developmental plans to ensure that they implement the interventions as specified – Participant 5

So obviously those milestones that are reached are communicated and reported because we are held to account using the key performance indicators (KPIs) that are audited. This is to check, if we do indeed what we say will do in our work with SMEs or incubatees – Participant 3FG

So as an incubator, our normal recruitment process requires the business to be registered and have a minimum viable product, but there's also another way, which is through our accelerator programme, which we then sometimes take companies or innovations that are not part of any registered business - Participant 1FG

We obviously we work within particular industries, which are the renewable energy, climate innovation, bio economy and the smart industry which is the digital economy - Participant 5

The boarding of new incubatees takes place after they have completed the four to five documents. With the documents we establish whether they are a category A or B business. A category A business is classified as a micro enterprise with minimal experience and less market know-how. A category B is a business that has been operating but struggling to be market compliant - Participant 2 FG

We provide a pre-incubation of three months for category A-incubatees before we can move them into a full incubation programme. We prefer companies to come in registered. Given that we are in a specialised field of incubation we incubate companies that are in the mining, construction or engineering industries – Participant 1FG

The element of clear communication of expectations from both the incubator and incubatees at the on-boarding stages is supported by Rollnik-Sadowska, Glińska and Ryciuk (2022) who indicated that a key element of mentoring is communication and effective communication is a condition for the effective mentoring process. The effectiveness of communication means that the goals that are set for the communication between incubatees and mentors are fulfilled. Both interview and focus group sessions indicated a misalignment of mentoring and coaching expectations due to the lack of clear communication at the on-boarding stage.

Finding 14: The expectations of all parties involved in a business incubation programme are not well communicated or well documented at the start of an incubation process.

6.4 Implications of Sub-Themes on Post-Incubation Performance (Interviews with Post-Incubatees) and Post-Incubatee Aftercare Support

Entrepreneurial performance and growth of post-incubatees were evident in the themes: entrepreneurial reward (interviews with post-incubatees) and monitoring and business assistance intensity. These themes created an interlinkage between the sub-themes of post-incubation performance (interviews with post-incubatees) and post-incubatee aftercare support (focus group sessions).

The primary endeavour in organising the literature and empirical research concerning the application of incubation processes appears to be that of Hackett and Dilts (2004): The theory of business incubation that seeks to explain how business incubators and the process of business incubation increase the likelihood that new businesses will survive the early stages of development. The theory conceptualises the incubator as an entrepreneurial firm that sources and macro-manages the innovation process within emerging businesses, infusing these businesses with resources at various developmental stages while containing the cost of their potential failure.

After the period of business incubation, businesses ought to be financially viable and ultimately successful after graduating from the programme. Post-incubatees interviewed in this study indicated that prior to joining an incubation programme they only had limited skills in business development, such as the development of proto-types and commercialisation of their goods and services. Participant 4 indicated: “There are so many things that they have helped with, like the business development process and they have assisted to develop my business plan.” Some post-incubatees, like Participant 4, indicated that they were at a prototype development stage when they joined the incubation programme. Participants 7 and 9 shared comparable views:

> *I had to be reintroduced into market, and I did feel that the funding is amazing and the mentoring was also amazing, I mean our mentor and co-mentor they got my business case up to date – Participant 9*

It's definitely worth it being incubatees and having a mentor. It really opens a lot of doors for you and makes you think about things you didn't know– Participant 7

The influence of business incubation processes was confirmed in discussions with incubation practitioners in focus groups sessions where they indicated that they took incubatees through the stages of business incubation. Participant 1FG of the first focus group session gave a detailed explanation: "We have programmes such as new venture creation and quality management systems so, this teaches them the basic fundamentals of running a business and also being able to deliver quality services or products to their customers. […], under new venture creation which a NQF level 2, incubatees are taken through ten models that comprise of Orientation to the new venture creation programme, here incubatees are introduced to the skills and strategies needed to succeed in a new venture creation. This module teaches learners the individual characteristics essential to every entrepreneur and the importance of analytical, creative and innovative thinking needed for business growth. The new venture creation course also eaches incubatees planning for business success where incubatees are shown how to identify and explore new ideas and potential ventures and the, how to produce business, financial and operational plans. There is also marketing and sales strategies, finances and financing a new venture and as well as business plan writing skills." Participants 5FG and 4FG of the first focus group expounded:

Under quality management system, one of the things that they are taught is to be able to understand document policies and work instructions for their businesses so they can provide quality services to their clients. The aim is to do everything with quality in mind - Participant 5FG

Market support, I think that role sits with the mentors and coaches because that is the most important thing- Participant 4FG

Business incubation centres are widely used to provide a good environment for new businesses. Without business incubation centres, it is not easy to grow a new organisation. Business incubation facilities boost innovativeness and assist in the establishment of significant businesses.

According to Theodoraki and Messeghem (2020), the business incubator is driven to create relationships with the other ecosystem actors who intervene in entrepreneurial support to offer an efficient service to incubatees. However, post-incubatees did not agree with this view of the creation of external ecosystems; Participant 5 was dispirited on the element of access to markets,

and she said: “[…] in terms of getting into the market, Incubator A has done zilch for me to get into the market.” With this issue in mind Participant 3 explained: “We do have some market opportunities, but none of that came by virtue of the incubation programme, the opportunities were based on past relationships and referrals” Participants 9, 7 and 1 indicated that there was quite a diminutive offering on creating relations with key stakeholders and the market at large:

> *I have joined Proudly SA now, so that has been a little helpful as well – Participant 9*

> *So unfortunately, the access to markets that they had, it had nothing to do with consulting, but it was more on the mining and construction industries - Participant 7*

> *Mostly I did the marketing myself within those clients that were close like Transnet and Eskom - Participant 1*

Some post-incubatees indicated an element of appreciation in the linkage to internal ecosystems and external networks. Participant 9 indicated that a linkage was made with large commercial businesses in Gauteng, she said: “My mentor got us a meeting with Spar and Dischem.” Participant 7 indicated a similar appreciation: “The networking that actually assisted was internal because then I would network with other incubatees, it did not feel like a facilitated process (internal networks).”

Programme implementers indicated a high level of intensity in the creation of an ecosystem with key stakeholders. Participant 4FG of the first focus group session indicated: “[…] unique to Incubator A is that the stakeholders that we have in our ecosystem are also board members of the incubation programme and as part of the agreement we have MOUs with them, is to ensure that incubatees get exposed to procurement opportunities.”

Participant 3FG of the second focus group session further expounded to say: “We do have formal and non-formal agreements with various partners. We've had a lot of success with the Industrial Development Corporation (IDC). Some of their funds are tailored towards the early-stage development cycle, like the KIPP fund asserts, here is a key partner for us, and in certain industries, for example, bio industry.”

The creation of an industry-based ecosystem was also alluded to by Participant 3FG of the third focus group session, who said: “We do primarily deal with industries within engineering, mining and manufacturing, but in the recent years it has expanded to include agriculture, green economy, construction inputs to name but a few. So, it’s an extensive industry base that ensures exposure to these SMEs and we historically had what we call quarterly open days where, regionally we would have SMEs exhibit the products, but also linked to industry, industry bodies like the East Rand Chamber of Commerce.” Participants 2FG, 6FG and 4FG explained:

> *There's a Township Economy Expo next week. We usually negotiate with these partners to say can the incubatees exhibit in your respective Expos. There are deliberate efforts in as far as an intervention is concerned, particularly market linkages. - Participant 2FG*

> *WRC is a key partner for the green industry, and in most instances, we do have formal relationships with them, so yeah, that’s where we are in terms of the monitoring of the success – Participant 6FG*

> *Incubator A has partners with quite a number of businesses, and which also fund business development. And so, you look at the type or the calibre of incubations that we have, you would not have an issue with market access– Participant 4FG*

The aspect of an industry-based ecosystem was confirmed by Hernández-Chea *et al.* (2021), indicating the role that intermediary businesses such as incubators play in connecting various actors within ecosystems. The process of the development of industry-based ecosystems led to a genus of hybrid businesses encouraging interactions between the other ecosystem entities. The business incubator ecosystem is a funnel where incubation management gradually zooms in on operations, support criteria, funding and marketing for the interest of the incubatee. Ratinho and Mitsopoulos (2021), indicated that incubators play an important role in nurturing businesses, creating jobs and enhancing character traits of incubated businesses. Internal and external ecosystem linkages indicated another layer of market access in the provision of business incubation support and processes. Incubatees can benefit from interaction with other incubatees and key stakeholders.

Finding 15: There is a need for the creation of an industry-specific ecosystems during and post business incubation.

6.5 Implications of the Theme: Entrepreneurial Competence and Aftercare Support

Post-incubatees interviewed indicated that they have seen some form of increase in their turnover and some are able to hire employees. Entrepreneurial competence was alluded to in focus groups with practitioners and mentors. The elements of business competence were seen under the theme: entrepreneurial competence. Likewise, Kwazu (2022) believes that a business incubator exemplifies a social network and displays characteristics of a community of practice for the development of the incubatees.

> *Currently I've employed 200 people and the business when I joined the incubator I had, I think about 30 people - Participant 4*

> *There were no losses that I actually incurred by associating myself with the incubator. I now have, additional business contracts and additional revenue - Participant 7*

The skills that entrepreneurs require in developing and sustaining the business are technical skills, business management skills, entrepreneurship skills and personal entrepreneurial maturity skills (Chang & Rieple, 2013). Therefore, entrepreneurial competence was gained through entrepreneurial opportunity and market positioning. Post-incubatees under the theme: entrepreneurial opportunity and the sub theme: access to markets, have indicated that they have benefitted from being in the same space as other incubatees as this created a platform for internal networks. In contrast, some post-incubatees have indicated that they are currently struggling to penetrate key markets due to the high costs of networking and access to markets and product commercialisation.

Regardless of the size of the venture, entrepreneurs require a number of skills to make a success of these ventures, among others, technical skills are important. Technical skills are defined as the ability to use knowledge with techniques such as the knowledge of accountancy, engineering and communication (Smit, Cronje, Brevis & Vrba, 2007). The researcher's viewpoint is that business management skills also include access to markets and leadership skills such as planning, organising and distribution of resources. Therefore, these notable skills have a common influence in facilitating entrepreneurial skills and activities. The role of a business incubator in nurturing SMEs is crucial for business development and sustainability. The importance of entrepreneurial competence development to entrepreneurial action is well established. Research

suggests that competence reflects the ability to effectively interact with the environment (Kemp, 2013).

Furthermore, incubation practitioners in focus group sessions indicated that stakeholder support is strong where incubators have indicated that they align their incubatees to the services and market opportunities presented by their stakeholders and the market at large. Thus, the element of post business incubation aftercare support is introduced as indicated by focus group members.

> *We see most of the SMMES coming back to us, requiring new scope of work and guidance particularly in specialised fields. You can look into it on a safety file. Your scope of work or the requirements and for you [the incubatee] to do have changed for example, let's say if you're in construction and now you want to move to waste management. Then we assist to licence their new business requirements – Participant 4FG*

Participant 5FG of the third focus group session indicated: “During and post-incubation the incubator continues to provide services on market linkages through exhibitions and also offers services on industry compliance.” However, contrary to the focus group sessions (with incubation practitioners), some post-incubatees have indicated that after graduating from a business incubation programme they are struggling with the business’ lack of expansion support in the form of regulatory requirements and access to funding. Participant 8FG indicated a lack of adequate funding to maintain and pay for patents on an annual basis.

To some post-incubatees, like Participant 4 indicated, hiring permanent employees is a risk for them, she explained: “Importantly some of us we don't we don't have permanent employees precisely because of a lack of financial sustainability.” Participant 7 indicated that banks do not recognise their loan applications due to a lack of collateral: “The contracts and short-term jobs that we bid for they don't come as often as we would want them to. So, at times you, will sit for six months without a big project but have small projects just to push and flow. But when you get a big project then you struggle with capital due to lack of collateral [...].”

The programme managers from focus groups sessions have also indicated that they have, from time to time, assisted post-incubatees with expansion needs and coaching however, the support is not formalised nor regularised. Participant 4FG of the second focus group session indicated: “We don't have anything crafted for them in terms of post–graduation support. So, they basically, they just come to us seeking opportunities. They might be looking for a particular or customised

assistance. So, it's mostly on the funding side on, getting introduced to a particular company, or hand holding to a meeting with a potential investor, something like that […].”

Participant 1FG of the second focus group session also indicated that there is no formal aftercare incubation programme, she said: “So, even after the programme, the incubatees they can come back maybe if they need assistance, there is that room, but it is not formal.” Participants from all three focus group sessions indicated that they do assist post-incubatees with their needs on a sporadic basis, but they are doing it out of goodwill:

> *I know we haven't done anything additional to support them after the graduation. […] So, we would continue sharing the opportunities as and when they come through, […]. Should they want to attend the trainings, we help. But otherwise, we haven't done a programme whereby we take care of them after the graduation – Participant 6FG*

> *When it comes to matters of health and safety compliance, they know we are a phone call away to assist with declarations. Should they receive contracts that require Health Safety and Compliance (HSC), post incubatees normally come back so we can assist with compliance. The HSC file that we assist most post-incubatees with it's for compensation for occupational injuries and diseases. It's more like an insurance for the employer to have in place so that if it happens that the employees get injured on duty, they can be able to get a quick trip from site to the private hospital. This is also cover employees should they get illnesses or diseases. So, this reassessment has to be done on an annual basis. These are normally class 13 companies who work on industrial sites. We just assist out of goodwill - Participant 2FG*

> *We do keep them in mind. So, if there are, for example, the DTIC is having an exporting trade mission to Ghana, we call post-incubatees that might be targeting Ghana as a potential market– Participant 4FG*

> *We keep the channels open in as far as linking them, perhaps with industry bodies that we are affiliated with, because we have partnerships as I mentioned, not only in the country but internationally. And we keep those channels open. It's something we still have not, in my opinion, fine-tuned entirely, but we keep the channels open because we have an ecosystem that involves stakeholders, suppliers, the network*

is very unique and us as mentors and managers of the programme answer to stakeholders who are board members as well – Participant 5FG

What normally happens, because remember, as a business grows, what you also look at is your scope and expansion. The post-incubatees now need to understand how they can maintain their business growth and development. This is where we assist them to align to the compliance specification of your new scope of work. So, that is where we also support – Participant 5FG

Allie-Edries and Mupela (2019) point out that, in some cases, contact is usually maintained with graduates of incubators to provide support and aftercare, however, in other instances the contact ends and there is no communication after leaving the business incubation programme. In the absence of contact, there is no monitoring of success and survival. The researcher argues that, although one of the main aims of a business incubator is to create new businesses, the survival rate of these new businesses is more important.

Finding 16: Some nascent entrepreneurs find it difficult to sustain their entrepreneurial development and growth post-incubation and require the services of a solid post-incubation aftercare programme.

By way of the integration of secondary literature, data collected from interviews with post-incubatees, and data collected from focus group sessions with programme developers, incubations managers, mentors and coaches; the following key findings were identified:

a) Finding 1: Nascent entrepreneurs seek the assistance of incubators during the opportunity identification and idea formulation phases of business development.
b) Finding 2: The provision of a structured business incubation mentoring and coaching approach enhanced the incubatees' business development skills and their confidence to position themselves in the market.
c) Finding 3: The dominance and competition from multinational businesses make it difficult for incubatees to enter the local market.
d) Finding 4: The regulatory requirements in South Africa can create bureaucracy in the advancement of post-incubatees' businesses.
e) Finding 5: There are limited funding opportunities for post-incubatees to advance their business development needs after graduating from a business incubation programme.

f) Finding 6: Despite the many challenges that post-incubatees face outside an incubation programme, they have marginally managed to find ways of sustaining their businesses.
g) Finding 7: Post-incubatees lack business monitoring systems to record and measure the performance of their businesses (post-incubatees are only relying on bank statements and fail to measure other aspects of the businesses such as the number of jobs created).
h) Finding 8: Business incubators lack systems to track the performance of post-incubatees' businesses.
i) Finding 9: Post-incubatees' businesses are surviving but are not reaching the stage of profitability because the income that is generated is too marginal to ensure survival of the business.
j) Finding 10: There is a lack of experienced and industry-specific mentors during business incubation stages.
k) Finding 11: When incubatees were assigned a business development mentor, there was no solid business relation between the mentor and the mentee.
l) Finding 12: A further key finding is that the ratio of mentors to mentees in not specified due to the lack industry-specific mentors.
m) Finding 13: The expectations of all parties involved in a business incubation programme are not well communicated or well documented at the start of an incubation programme.
n) Finding 14: There is a need for the creation of an industry-based ecosystem with relevant stakeholders during and after business incubation.
o) Finding 15: Post-incubatees find it difficult to proceed in sustaining this process once they have graduated from an incubation programme, it indicates a need for incubators to have a solid aftercare programme.

Based on the literature review and research findings revealed, a conceptual framework was developed by the researcher to address the gaps that were presented during the data collection process. Figure 6.1 presents a process flow of the support to be granted to incubatees during a business incubation process**.**

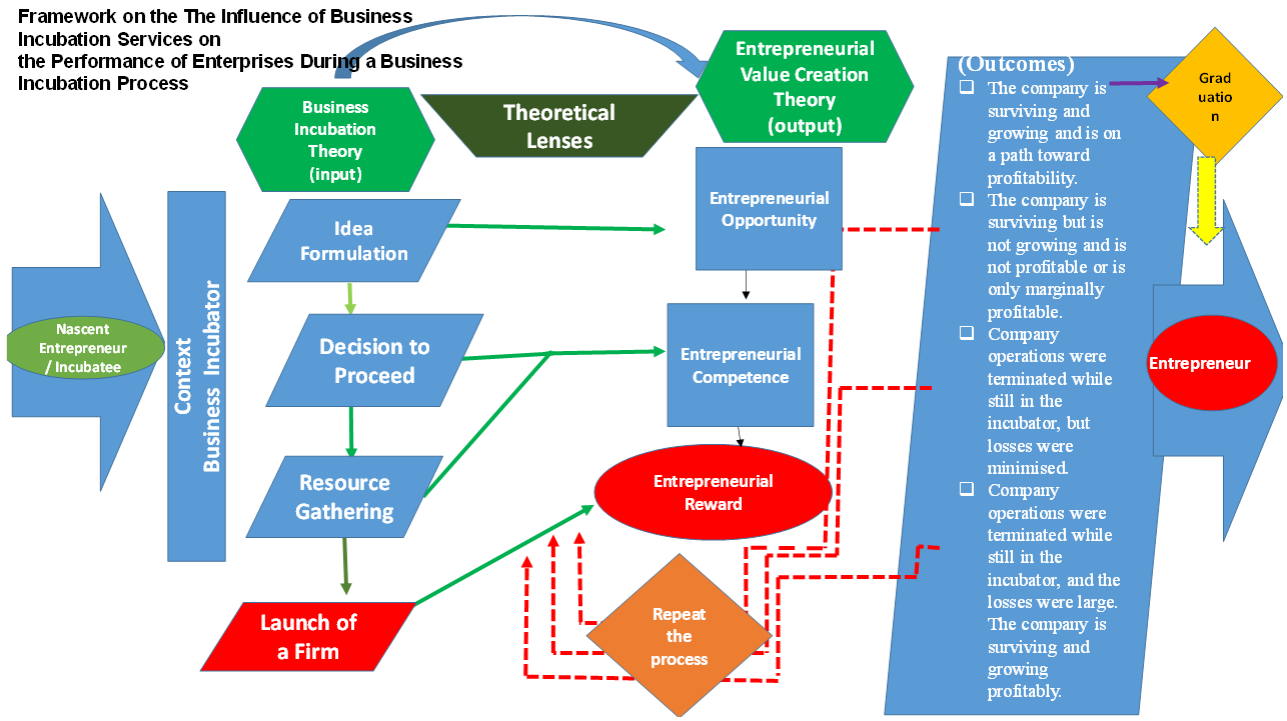

Figure 6.1: Framework on the influence of business incubation services on the performance of businesses during a business incubation process (Source: Researcher's Compilation)

Figure 6.1 indicates following the lenses of the business incubation theory which presents the inputs provided by the incubator. The nascent entrepreneur, being an incubatee in this case, can be assessed and guided through the idea formulation process to realise entrepreneurial opportunity.

The second stage (decision to proceed) of an input process entails the decision to proceed in the assessment of product or service viability. This stage is where intense mentoring and coaching takes place (mentoring assistance intensity). The output of the second stage will be seen in the entrepreneurial competencies of the incubatee with the assistance of the programme implementer to venture into the market or the ability of the incubatee to sell and market his/her invention.

The third stage of the incubation process should be the resource gathering stage, where the incubator assists the incubatee with the resources required to secure a space in the market. This can take the shape of linking the incubatee with finance institutions or stakeholders that can assist with capital resources required for running a business. This process through the lenses of entrepreneurial value creation theory should lead to entrepreneurial competence. During this stage the incubatee should have confidence in the resources at hand to successfully venture into the market. Through the lenses of the business incubation theory, the fourth stage should entail

a process of solidifying all inputs provided in a business incubation process. Thus, the incubatee's business should have gone through all the stages of incubation and his/her business should be ready to be launched or stand on its own in the market.

The business should be in compliance with the industry regulations and standards. The incubator should assist with creating a space for the incubatee's business to be noticed (for example taking the incubatee to business exhibitions, assist with the creation of a social page or website and also advertise the incubatee's business on the incubator's portal and all other relevant communication platforms).

The input and output process should lead to a stage where entrepreneurial value creation is realised and the incubatee will reap entrepreneurial rewards in the form of increased business contracts, profit and an increase in the number of employees. Using integrated lenses of the business incubation theory and the entrepreneurial value creation theory, following this process should lead to the following results:

a) The business is surviving and growing profitably.
b) The business is surviving and growing and is on a path towards profitability.

This process can take anything between two to three years. However, should the incubatee's business be experiencing the following?

a) The business is surviving but is not growing and is not profitable or is only marginally profitable.
b) Business operations were terminated while still in the incubator, but losses were minimised.
c) Business operations were terminated while still in the incubator, and the losses were large.

The incubator can repeat the input and output process for an additional period to enhance the incubatee's chances of surviving in the market.

Once the incubatee graduates from the business incubation programme it is important that the incubator continues to measure its impact and also to address any shortcomings that the post-incubatee might be experiencing in the market. This process can form part of a business incubation aftercare programme.

Figure 6.2 proposes a framework on post-business incubation assessment, this will serve as a second phase following the framework proposed in Figure 6.1. After business incubation graduation, on an annual basis, the incubator through its mentoring and evaluation process can assess its impact on the post-incubatee's business using the staged approach set out as follows:

a) Should the post-incubatee's business be at a stage where it is surviving and growing profitably, the incubator can continue to enhance growth and sustainably through continuous mentor–mentee relations.
b) Should the post-incubatee's business be surviving and growing and is on a path toward profitability, as part of an aftercare programme, the incubator may propose product or service diversification and/or create additional market linkages with domestic or international stakeholders.
c) Should the post-incubatee's business be at a stage where it is surviving but is not growing and is not profitable or is only marginally profitable, incubation practitioners can propose partial training and development based on a needs assessment conducted and can propose an alternative business approach.

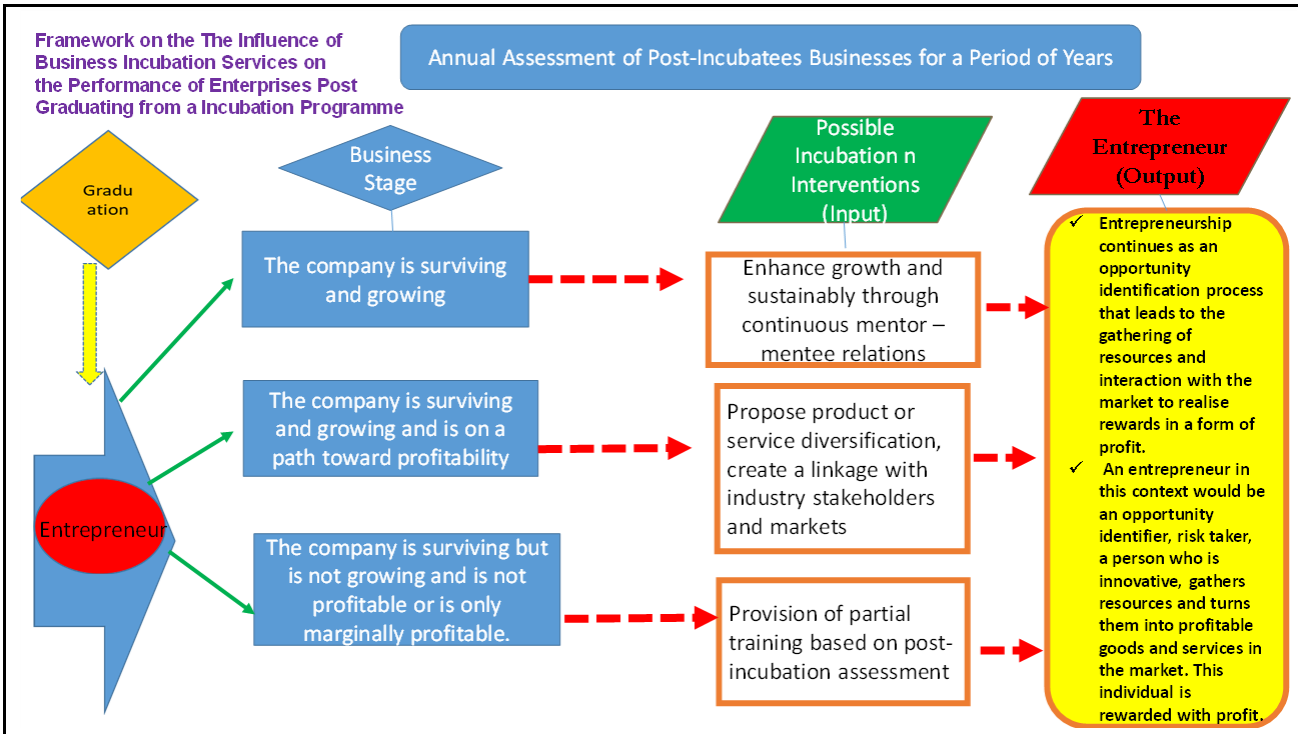

Figure 6.2: Framework on the influence of business incubation services on the performance of businesses post graduating from a business incubation process (Source: Researcher's Compilation)

In following the framework, the incubator can ensure that the entrepreneurship development for the post-incubatee should continue to be an opportunity identification process that leads to the gathering of resources and interaction with the market to realise rewards in the form of profit. An entrepreneur, in this context, would be an opportunity identifier, risk taker, a person who is innovative, gathers resources and turns them into profitable goods and services in the market. This individual is rewarded with profit.

6.4 Conclusion

This chapter provided an integration of literature, data from focus groups and data from interview sessions with post-incubatees. Fifteen (15) key findings were identified and will be used in the subsequent chapter to address the gaps highlighted. Each finding was linked to a research objective, this will lead to a comprehensive analysis of findings and the development of recommendations in the next chapter. The framework developed will also lead to key recommendations emanating from study.

CHAPTER 7: SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

7.1 Introduction

This chapter consolidates the findings listed in Chapter 6 to discuss how the research contributed to knowledge. The chapter states the implications of the research for incubation practitioners, policy developers and prospective, current and post-incubatees. The aim of the research study was to explore if the influence and resources provided during business incubation processes and services enabled entrepreneurs to develop and grow their businesses in the market post incubation. The chapter starts by giving an overview of all empirical and contextual data collected.

7.2 Overview of the Research Chapters

a) Chapter 1 outlined the background to the study and the problem statement.
b) Chapter 2 reviewed the business incubation research literature and theories relating to global and local business incubation practices and outcomes. This chapter probed into the history of business incubation and its importance.
c) Chapter 3 discussed the incubation ecosystem in relation to entrepreneurship.
d) Chapter 4 detailed the methodological approach adopted by the study and the methods used to collect and analyse the primary data. The study followed a purposive sampling approach with the unit of analysis being entrepreneurs that have exited or graduated from a business incubation programme as well as managers of the programme.
e) Chapter 5 gave a report of the empirical data collected and the development of key themes.
f) Chapter 6 critically discussed and analysed the empirical data in terms of the literature and theoretical concepts.
g) Chapter 7 drew together the evolving findings from chapters five and six by critically discussing them within the context of incubation and entrepreneurship. It provided a robust analysis of the implications of research to knowledge. The chapter provided a discussion of the research contributions, limitations and opportunities for future exploration.

7.3 Findings Reflected in Terms of Research Objectives

The objective of the study was to explore if the influence and resources provided during business incubation processes enabled entrepreneurs to develop and grow their businesses in the market post-incubation. The main objective was further considered through secondary objectives. Below is an explanation in terms of the comprehension of the research objectives and outcomes:

a) To explore whether incubators equip incubatees with sufficient resources for continued existence in the market post-incubation.

- Finding 1: Nascent entrepreneurs seek the assistance of incubators during the opportunity identification and idea formulation phases of business development.
- Finding 3: The dominance and competition from multinational companies make it difficult for incubatees to enter the local market.
- Finding 4: The regulatory requirements in South Africa can create bureaucracy which negatively affects businesses after they leave the business incubation process.
- Finding 5: There are limited funding opportunities for nascent entrepreneurs to advance their business development needs after graduating from a business incubation programme.
- Finding 6: The challenge of a lack of funding for capital or for market penetration remains a key hindrance for post-incubatees in South Africa.
- Finding 10: The linkage between graduating from a business incubation process and entrepreneurial reward indicate that post-incubatees' businesses are surviving but do not earn sufficient profits.

b) To investigate the influence of business incubation processes on the development of entrepreneurial performance and growth of post-incubatees.

- Finding 2: The provision of a structured business incubation mentoring and coaching approach enhanced the incubatees' business development skills and their confidence to position themselves in the market.
- Finding 7: Despite the many challenges that post-incubatees face outside an incubation programme, they have marginally managed to find ways of ensuring continued existence of their businesses.
- Finding 8: Post-incubatees lack business monitoring systems to record and measure the performance of their businesses.

- Finding 9: Business incubators lack systems to track the performance of post-incubatees' businesses.
- Finding 11: There is a lack of experienced and industry-specific mentors during the different stages of business incubation.
- Finding 12: Many of the assigned mentors did not understand their coaching role for incubatees to realise the full value of their entrepreneurial development process.
- Finding 13: The ratio of mentors to mentees is too high.
- Finding 14: The expectations of all parties involved in a business incubation programme are not well communicated or well documented at the start of an incubation process.
- Finding 15: There is a need for the creation of an industry-specific ecosystems during and post business incubation.
- Finding 16: Some nascent entrepreneurs find it difficult to sustain their entrepreneurial development and growth post incubation and require the services of a solid post incubation aftercare programme.

c) To develop a framework that will address the business incubation process and service gaps identified during and post business incubation.
   Framework 6.1 and Framework 6.2 were compiled. The frameworks have been created from primary data findings and information generated in the study.

7.4 Conclusions of the Study

In drawing together, the findings of the research study of exploring the influence of the business incubation process on entrepreneurial performance and growth post-incubation, research conclusions of the study are outlined next.

7.4.1 The incubators equip incubatees with sufficient resources for continued existence in the market post-incubation

The post-incubatees from the two Gauteng province-based incubators were coached and mentored regarding the skills and strategies needed to succeed in a new venture creation. Post-incubatees' businesses are still in existence and are applying the skills gained through an incubation process. Noticeably, business incubation processes provided coaching about characteristics that are essential to every entrepreneur and the importance of analytical, creative and innovative thinking needed for growth of a business.

The environmental and economic influences of the current markets were also taught. The incubation programme assisted in equipping incubated businesses with the knowledge and services to reduce external costs that arise from acquiring external services including the services of lawyers, accountants and investment advisers. The provision of a mentor or a business coach during incubation aided the business development process for new businesses. The provision of infrastructure was also one of the key elements that contributed to the survival of businesses during and post-incubation. The provision of engineering and construction working spaces or workshop areas at no cost or at a minimal fee assisted the entrepreneurs in growing their businesses. The furnishing of technological space and machinery was also beneficial for businesses in the research and innovation industries.

Supplying of co-working spaces also led to a networking environment for incubatees where they formed strategic business partnerships with fellow incubatees; it also created an internal ecosystem between incubatees which continued post-incubation. The business incubation programme served as a platform to reduce the incubatees' costs associated with maintaining and preparing information for professional advisers, completing tax forms and dealing with revenue authorities. The businesses of all post-incubatees that participated in the research study are still operating, although some have diversified into other industries and markets, therefore, business incubation processes provided incubatees with sufficient resources for growth and development post-incubation.

7.4.2 Incubators lack the capacity to generate funding opportunities for incubatees during and post-incubation

The lack of funding for capital or for market penetration was a key hindrance for post-incubatees. Post-incubatees are experiencing challenges in securing funding to either sustain or expand their businesses. The lack of access to finance remains a challenge for all post-incubatees interviewed, which inhibits their growth and sustainability.

Issues of product development, access to markets, business expansion and the lack of external funding were distinct. Post-incubatees are finding it difficult to navigate the loan process as it involves going through the traditional banking application process that requires sufficient collateral and a good credit standing.

Contributing factors to low access to finance included the absence of suitable finance products available to incubatees and post-incubatees, the lack of credit information, the supposed riskiness of funding post-incubatees and the apparent lack of assets available for the purposes of collateral. All of these issues reduced the availability of funds and increased the cost of credit for post-incubatees.

Furthermore, the lack of access to external funding sources for innovation and expansion caused post-incubatees to focus on promoting innovation and marketing their businesses at relatively low levels or; alternatively, diverting from their original ideas into areas of low risks that do not require extensive funding. This constitute, for them, a means of minimising the risks associated with innovation and shows a limitation on the skills that were imparted during an incubation process.

7.4.3 Although post incubatees' businesses are still in operation, they are constrained and often diversified into other business areas

The incubation process had a high level of business assistance intensity, which was evident in that all post-incubatees that were interviewed managed to stay in business for more than two years and are continuing to seek further assistance from the incubators when needs arise. However, the success and sustainability came with challenges as most post-incubatees struggled with adhering to market and industry-specific requirements for their original business ideas. In some cases, the dominance of multinational companies made it difficult for post-incubatees to penetrate key industries.

The majority of post-incubatees have diversified from their original business concepts into industries that require less specialisation, and the regulatory requirements are minimal. The stiff local bureaucracy and business industry compliance requirements set by the South African regulatory bodies made it difficult for the post-incubatees to penetrate into industries they specialise in. However, the diversification approach led to minimal profit being earned. Furthermore, some post-incubatees also saw international markets and their regulatory requirements as less demanding than those in South Africa.

7.4.4 Both incubators and post incubatees lack sufficient tracking systems

Business incubators lack systems to track the performance of post-incubatees' businesses. Incubators are not aware of the current performance of their post-incubatees' businesses.

Business incubators fail to monitor whether their post-incubatees are surviving in the market. The lack of sufficient tracking systems is an indication that incubators have a gap in measuring their own efforts in positively impacting nascent entrepreneurs.

Furthermore, post-incubatees lacked systems to record and measure the performance of their businesses. Post-incubatees do not have well-designed performance measurement systems and are depending on their monthly bank statements to measure whether their businesses are progressing. The importance of performance measurement is not well understood by post-incubatees; they measure what is easy and what they think matters most which was mostly their monthly income generation. It indicates that every serious performance decision must start with understanding the extent to which the primary customers' needs are met and at what cost - post–incubatees omitted to look at that aspect. The harder it is to capture, report and measure performance data, the more likely the data will not be captured, and their business performance might be compromised.

7.4.5 Incubators lack industry-specific support

The incubators are limited in the provision of solid industry-specific mentor–mentee relations, due to the costs associated with the employment or procurement of experienced mentors. The time spent between mentors and mentees was limited to solidify relations and to structure an industry-specific approach in creating a trajectory that is unique to the incubatee's business. Notably, there are clear expectations from post-incubatees that the benefits for the mentee should have included: improved performance and productivity; improved knowledge and skills; greater confidence; empowerment; faster learning and enhanced decision-making skills; improved understanding of the business; improved creativity and innovation; encouragement of positive risk-taking as well as development of leadership abilities. Post-incubatees had high levels of expectations for strategic change and industry-specific facilitation for their businesses from their mentors.

Furthermore, the ratio of mentor to mentee was not specified and it showed traces of a blanket approach in business incubatee mentoring. The allocation of a lot of incubatees to one mentor indicated the risk of mentees not acquiring enough support and information from the mentors. In addition, expectations of all parties involved in a business incubation process were not well communicated. The research indicated that there is a need to establish clear criteria for mentor-mentee matching that must be based on factors such as experience level, or field, expertise,

communication style and personality traits. Development of a matching algorithm or process that considers the compatibility between mentors and incubatees should be based on an established criteria that mentors and mentees agree upon at the on-boarding stage of business incubation. The setting of realistic and attainable goals from the start was not instrumental in preserving a harmonious relationship between incubation management and incubatees.

7.5 Significance of the Study

Unique to this research study is that all post-incubatees' businesses are still in operation. The main research question of key elements of business incubation that influence the incubatees' businesses after graduating from an incubation programme led to the notion that, although businesses are surviving post-incubation, Gauteng business incubation programmes have no solid post-incubation monitoring and evaluation systems in place. The influence and impact of a business incubation programme cannot be traced nor measured once incubatees graduate from their business development systems. The study contributes to the body of knowledge in a practical format and also in a theoretical context, these are explained as follows:

7.5.1 Practical contributions

The study contributes to the body of knowledge by creating two-phased approach frameworks. The frameworks were developed to create a linkage between business incubation support as an input and entrepreneurial value creation process as an output. The input and output approach aims to indicate levels of growth in a nascent entrepreneur's business trajectory. The nascent entrepreneur, being an incubatee in this case, can be assessed and guided through the idea formulation process to realise entrepreneurial opportunity as a first stage of development.

Figure 6.1 provides a practical method in which intense mentoring and coaching serve as an input (mentoring assistance intensity) of which the output will be seen in the entrepreneurial competencies of the incubatee with the assistance of the programme implementer to venture into the market or the ability of the incubatee to sell and market his/her products and services (second stage).

The third stage in the input and output should be the resource gathering process where the incubator should assist the incubatee with the resources required to secure a space in the market. This can take shape by practically linking the incubatee to finance institutions and other relevant

stakeholders. A deliberate creation of an input and output process flow presents an opportunity to do a business development diagnostic assessment of the growth of the business development and support processes. The process presented by the framework on the influence of business incubation services regarding the performance of businesses during a business incubation process should lead to a stage where entrepreneurial value creation is realised and the incubatee will reap entrepreneurial rewards in the form of increased business contracts, increased profit and an increase in the number of employees after they complete an incubation programme.

Measuring of the impact of a business incubation programme can only be seen in the performance and sustainability of businesses once they have graduated from an incubation programme. Figure 6.2 presents a framework of the influence of business incubation services on the performance of businesses after graduating from a business incubation process.

By following the framework, the incubator can ensure that the entrepreneurship development for the post-incubatee should continue to be an opportunity identification process that leads to the gathering of resources and interaction with the market to realise rewards in a form of profit. Post business incubation graduation, on an annual basis, the incubator, through its mentoring and evaluation process, can assess its impact on the post-incubatee's business using the staged approach as set out in Figure 6.1. The staged approach will guide and enhance the development of a business incubation aftercare programme.

7.5.2 Theoretical contributions

This research contributed to the theoretical aspect of the body of knowledge by using an integration of the theory of business incubation and the entrepreneurial value creation theory which provided a solid foundation to better understand and implement business incubation support inputs in an entrepreneurial development process.

The theory of business incubation guided the study in analysing the five incubation steps (idea formulation, decision to proceed, resource gathering, launching of a new firm and firm development). The entrepreneurial value creation theory analysed survival mechanisms of the entrepreneur in relation to entrepreneurial opportunity, entrepreneurial competence and entrepreneurial reward. This theoretical contribution unpacked the concepts of business incubation and specific linkages are made on whether businesses survive after exiting an incubation programme, as per Figure 2.3.

In detailing the main conceptions and allied attributes of the business incubation theory (business incubation performance, selection performance, monitoring and business assistance intensity and resource munificence) and those of the entrepreneurial value creation theory (value potential, value driver and value appropriated), a theoretical gap was filled in understanding the influence of a business incubation process once entrepreneurs have graduated from the programme, as per the case of post-incubatees in the Gauteng province. An input and output phased method showed that the idea formulation stage (business incubation theory) can be linked to the entrepreneurial opportunity stage (entrepreneurial value creation theory); the decision to proceed and resource gathering stages (business incubation theory) can be linked to the entrepreneurial competence stage and lastly the launching of a firm stage (business incubation theory) is linked to the entrepreneurial reward stage of the entrepreneurial value creation theory.

The input and output process created a theoretical progression in evaluating the contribution of business incubation support in aiding the growth of nascent entrepreneurs. The methodology led to the authentication of how each stage of a business incubation process can be linked to an entrepreneurial development outcome and, therefore, once an incubatee has graduated from the programme, he or she can then be defined as: someone who takes risks and reaps profit, turns technology and ideas into innovations in the market, enables new combinations, faces uncertainty about current choices in relation to future outcomes and creates opportunities, as per Figure 2.2.

7.6 Recommendations of the Study

Following the results of the study, recommendations of post-incubation support are made as follows:

7.6.1. Policy developers and incubation practitioners

Policy developers and incubation practitioners should facilitate the creation of business linkages between incubatees and key stakeholders. The incubation programme should not only offer technical training, but incubators can also streamline the services provided by their incubatees into supplier development programmes offered by multinational stakeholders. Incubatees' businesses can be given preferential consideration by the incubator's stakeholders in the provision of services required by them. Preferential consideration by major stakeholders can serve as an inclusion into the industrial value chains of key technology and innovation industries. Preferential consideration can further enhance the sustainability of post-incubatees in the market.

The development of a post-incubation monitoring and evaluation system is key for business incubators in Gauteng since there is effectiveness in measuring the influence of business incubators in the survival of businesses once in the market. A five-year post business incubation survival monitoring approach can be adopted.

The frameworks developed (Figure 6.1 and Figure 6.2) can be utilised in the measuring and expanding of the five survival measures proposed. The measuring of the impact on the performance of post-incubatee's business performance will assist in the identification of gaps and trends in the market, enhancement of the current incubation programme and the development of an effective aftercare programme for post-incubatees. The collaboration with stakeholders and coordination thereof should be intentional in that post-incubatees are integrated into the value chains of vital multinational stakeholders.

7.6.2 Mentoring and coaching services

The economic and trading spaces have evolved so much as most businesses are trading in international spaces and have introduced AI and other 4IR technologies into their businesses. The use of a one-size-fits-all coaching and mentoring system might limit the development of businesses that are trying to enter into markets that are developing quite rapidly. Mentoring and coaching should be tailor-made for the specific needs of an entrepreneur's business concept and approach.

7.6.3 Development of regional competencies for stakeholder development

Incubators should utilise their regional competitive advantage in the development of nascent entrepreneurs. In cases where incubators are established and located in regions that have high levels of competitive advantage, such as incubators that are established in mining, farming and agro-processing or where incubators are located within close vicinity to tertiary institutions, they should develop and enhance entrepreneurship in those industries. Furthermore, it is proposed that incubators should formalise relations with universities in the region to expand support concerning the commercialisation of innovations and also to leverage on the universities' stakeholders for international funding for prototype developments and marketing.

7.6.4 Development finance institutions

Business incubators are developed with the end in mind, to grow sustainable and viable businesses, however, without adequate funding businesses struggle to penetrate into key markets and to become competitive. There should be enough confidence in the capabilities of business incubators to train and equip nascent businesses in becoming competitive.

National and international development finance institutions (DFIs) are specialised development banks or subsidiaries set up to support private sector development in developing countries. These banks should consider funding post-incubatees' businesses because incubatees have proven their entrepreneurial capabilities by completing an incubation programme. Therefore, the coordination and collaboration in the support of post-incubatees should be intentional in that industry-specific mentors and coaches must possess relevant skills and incubation centres and hubs should be centres of excellence. Start-up capital should be sourced and provided, and an enabling infrastructure should be at the core of all operations of the incubator.

7.7 Recommendations for Future Studies

Global economic development strategies have recently changed their trajectory to become more digital. It is recommended that future research studies should be conducted to understand the role of business incubators in the enhancement of entrepreneurship in the digital economy. Future research should prioritise the collection of longitudinal data spanning 10 to 15 years to augment the existing body of knowledge. Business incubation support and research should not only be limited to a qualitative methodology, but a quantitative methodology should also be utilised in future to measure the influence of the business incubation process on entrepreneurial performance and growth post-incubation.

7.8 Limitations and Delimitations

a) The study provided an analysis of a sample size from the Gauteng province; however, a broader national scale assessment is required to create a national exploration of the influence of business incubators on the survival of businesses after graduating from a business incubation process.
b) Current literature presents a lack theoretical applications in the support of small and medium businesses post graduating from a business incubation programme.

7.9 Conclusion

The exploration of the influence of the business incubation process on entrepreneurial performance and growth post-incubation was supported by the integration of the theory of business incubation and the entrepreneurial value creation theory. The use of the two literature theories guided the literature review process and the collection of empirical data. The problem statement that led to the study was that the contribution that business incubation makes towards the long-term development and growth of nascent entrepreneurs, once they leave the incubation process, is not evident.

Therefore, the findings of the research study indicated that incubators enabled nascent entrepreneurs to develop and grow their businesses in the market post-incubation. Although, in further accessing the influence of business incubation processes on the development of entrepreneurial performance and growth of post-incubatees (secondary research objective 2), the findings of the study indicated that incubators are still limited in the provision of highly skilled industry mentors and the acquiring of funding is a challenge for post-incubatees.

A distinguishing feature of the data gathered is that nascent businesses came into the business incubation process as only registered entities without a clear business approach to the market and its segments. In most instances nascent entrepreneurs approached business incubation institutions with just undocumented business concepts; their business knowledge characteristics were of a nascent nature as they had limited knowledge of the market, limited product development and commercialisation skills. The nascent entrepreneurs lacked the necessary regulatory and business development skills needed to develop a business case and plan. The key character trait that entrepreneurs had before entering a business incubation programme is that they all had an innovative idea that needed to be enhanced and developed into a viable business product or service.

As per the business incubation theory, during an incubation process, learnings concerning idea formulation and decisions of whether to proceed or not were imparted. Resource gathering strategies were introduced and incubatees were introduced to the market. The business incubation process might not have been at the expectation level of all parties; however, it was done. The process of business incubation has led to entrepreneurial value chain creation as, currently, post-incubatees are able to take risks and have turned their technology innovations and

ideas into viable products and services. The results on an entrepreneurial value chain creation process are evident in that all post-incubatees have businesses that are operational, and some have penetrated international markets and have employees.

In Chapter 3 the researcher explained entrepreneurship to be an opportunity identification process that leads to the gathering of resources and interaction with the market to realise rewards in the form of profit. An entrepreneur in the context of this study would be an opportunity identifier, risk taker, a person who is innovative, gathers resources and turns them into profitable goods and services in the market. This individual is rewarded with profit and, therefore, through the skills provided in an incubation process and a personal need to succeed all post-incubatees in Gauteng that participated in the research study remained entrepreneurial in their development and growth processes.

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APPENDICES

APPENDIX 1: Ethical Clearance Certificated

UNISA university of south africa

College of Economic and Management Sciences_CRERC

NHREC Registration # : (if applicable)
Ref #: 2154
Name: Ms lesego serwadi
Student #: 41113063
Staff #:

Date: 22/04/2024

Dear: Ms lesego serwadi

Decision: Ethics Approval from 22/04/2024 to 21/04/2027

Researcher: Ms lesego serwadi

3957 Rooikeelreier Street, Rua Viast

Pretoria

41113063@mylife.unisa.ac.za 0722470622

Supervisor: Dr Anthea Amadi-Echendu amadiap@unisa.ac.za

Co-Supervisor: Professor Cina Van Zyl vzylc@unisa.ac.za

The influence of business incubation services on the performance of enterprises post exiting an incubation programme - A case of post incubation in Gauteng

Qualification: PHD MANAGEMENT STUDIES

Thank you for the application for research ethics clearance by the College of Economic and Management Sciences_CRERC for the above mentioned research study Ethics approval is granted for three years.

The **low risk application** was **reviewed** by College of Economic and Management Sciences_CRERC in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the College of Economic and Management Sciences_CRERC .
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.

APPENDIX 2.1 Permission to Conduct Research

C. OFFICIAL USE ONLY – TO BE COMPLETED BY COMPANY/ORGANISATION/COMMUNITY

Decision:

☑ Permission granted.
☐ Permission with conditions is granted.
☐ No permission could be granted at this time.

Special Conditions (if any – Expectations of the outcomes of the study must be stated. For example: Will feedback/a report be required before submission of the publication?):

If possible relevant feedback would be appreciated.

The following person and/or department/and or committee has been appointed to assist the researcher in the data collection process (if applicable):

Mark Taylor - National Operations Manager
Ms Tiisetso Podile - Springs and National Center Co-ordinator
Mr Sibusiso Msiza - National Administrative assistant

By signing this form, you are indicating that you have read the description of the study, **have the legal and delegated authority to grant permission for the study on behalf of the company/organisation/stakeholder/community** and that the company/organisation/stakeholder/community in principle agrees to the terms as described in the short questionnaire that follows:

1. **I/We have reviewed the application form and received a copy of it. The purpose and nature of this study are clear, and all questions and issues of concern have been answered to satisfaction.**

☑ **Yes**
☐ **No**

2. **I/We (name of the person responsible and/or name of company/organisation/stakeholder/community)**

Lepharo NPC

agree to support this study and hereby grant permission for the data generated from this research to be used in the researcher's publications on this topic.

☑ **Yes**
☐ **No**

Signature

Name and surname of the person with delegated authority to grant permission on behalf of the company/organisation/stakeholder/community

5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.

6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.

7. No field work activities may continue after the expiry date (21/04/2027). Submission of a completed research ethics progress report will constitute an application for renewal, for Ethics Research Committee approval.

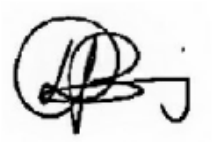
Additional Conditions

1. Disclosure of data to third parties is prohibited without explicit consent from Unisa.
2. De-identified data must be safely stored on password protected PCs.
3. Care should be taken by the researcher when publishing the results to protect the confidentiality and privacy of the university.
4. Adherence to the National Statement on Ethical Research and Publication practices, principle 7 referring to Social awareness, must be ensured: "Researchers and institutions must be sensitive to the potential impact of their research on society, marginal groups or individuals, and must consider these when weighing the benefits of the research against any harmful effects, with a view to minimising or avoiding the latter where possible." Unisa will not be liable for any failure to comply with this principle.

Note

The reference number 2154 should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Kind regards,



Mr Nhlamulo Baloyi
Chair of College of Economic and Management Sciences_CRERC
E-mail: ebaloynd@unisa.ac.za

Professor Maelekanyo Christopher MULAUDZI
Executive Dean / By delegation from the Executive Dean of College of Economic and Management Sciences_CRERC
E-mail: tshilmc@unisa.ac.za

APPENDIX 2.2: Permission to Conduct Research

C. OFFICIAL USE ONLY – TO BE COMPLETED BY COMPANY/ORGANISATION/COMMUNITY

Decision:

☒ Permission granted.
☐ Permission with conditions is granted.
☐ No permission could be granted at this time.

Special Conditions (if any – Expectations of the outcomes of the study must be stated. For example: Will feedback/a report be required before submission of the publication?):

N/A

The following person and/or department/and or committee has been appointed to assist the researcher in the data collection process (if applicable):

Mr Grant Greyling Acting Exectuve for Enterprise Development

By signing this form, you are indicating that you have read the description of the study, **have the legal and delegated authority to grant permission for the study on behalf of the company/organisation/stakeholder/community** and that the company/organisation/stakeholder/community in principle agrees to the terms as described in the short questionnaire that follows:

1. **I/We have reviewed the application form and received a copy of it. The purpose and nature of this study are clear, and all questions and issues of concern have been answered to satisfaction.**

☐ **Yes**
☐ **No**

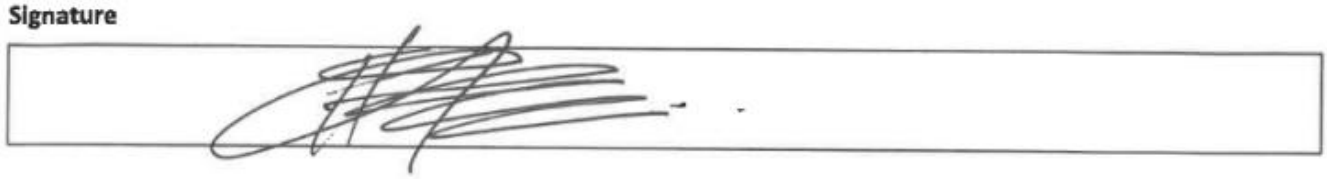
2. **I/We (name of the person responsible and/or name of company/organisation/stakeholder/community)**

Mr Mothibedi Matshele The Innovation Hub Management Company

agree to support this study and hereby grant permission for the data generated from this research to be used in the researcher's publications on this topic.

☐ **Yes**
☐ **No**

Signature



Name and surname of the person with delegated authority to grant permission on behalf of the company/organisation/stakeholder/community

Mothubadi Matshele.

Designation/Position

Intern CEO.

Email:

tmatshele@theinnovationhub.com.

Contact number:

012-844-0000 / 072-606-3772.

Date:

29/09/2023

Official stamp (if available):

APPENDIX 3.1: Consent to Participate in this Study

Annexure A

CONSENT TO PARTICIPATE IN THIS STUDY

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the <insert specific data collection method>.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname…… (please print)

Participant Signature……..Date……

Researcher's Name & Surname……(please print)

Researcher's signature……..Date……

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

APPENDIX 4.1 Interview Questions for Post-Incubatees

Annexure C

Incubatees - Interviews

a) Did the mentoring, coaching, direct counselling and networking interactions during your incubation assist you to foster innovation (commercialisation), product development, profits (financial viability) and accessing new markets for your business?

b) Did the business incubation process help you to create value in the context of the business opportunity (networks, service and product development), your entrepreneurial potential (skills and development) and the reward?

c) How did you identify market opportunities using entrepreneurial resources provided by the incubation programme to increase the value for your product or service?

d) Do you have a system in place to monitor and evaluate the performance and development (business size, profits, job creation) of your business?

e) Can you attribute your business' profitability or losses suffered post incubation to the services received from the business incubation programme?

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APPENDIX 4.2: Questions for Focus Group Sessions

Focus Group – Questions

a) Which business practices do the business incubation centre use during incubation to ensure the survival and profitability (financial viability) of nascent entrepreneurs after exiting the programme?
b) Do you offer additional support to incubatees after they leave the incubation program and do you develop market access to help them survive?
c) How do you monitor the performance of enterprises post existing the programme? (Alternative question for the incubators that do not offer post-incubation support: Do you receive any feedback to track job creation, commercialisation, economic contribution of incubatees after leaving the programme?)
d) Which criteria do you use to select potential incubatees?

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