

University of KwaZulu-Natal

**An assessment of incubatee selection criteria and its role on National Construction
Incubator performance.**

By

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DECLARATION

I Siyabonga Wilson Phakathi declare that:

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ABSTRACT

Governments worldwide have pinned the hopes of economic recovery on the Small Micro and Medium Enterprises (SMMEs) that face the daunting challenge of survival. It is widely recognized that business incubators have been promoted as a solution for lowering the failure rate of these SMMEs. As a result, the number of business incubators has increased globally, including in South Africa to assist with professional business development services for SMMEs. Consequently, significant time has been devoted to researching business incubators and their role in SMME success. However, the effectiveness of these incubators is still in question, thus a study of an assessment of the selection criteria and its impact on the National Construction Incubator's performance. This study is premised up two fundamental objectives and these include to explore the association between selection criteria and the business incubator performance and to explore the role of the incubatee selection process on the performance of the incubator. To address these research objectives, a qualitative approach was followed, where interviews were conducted with a sample of incubatees to assess the incubatee selection criteria and its effect on National Construction Incubator performance. The selection process involved advertising opportunities on digital platforms and newspapers, interested entrepreneurs applied, and shortlisted candidates were called for interviews. The study used thematic analysis of interviews with fifteen incubates and three support managers who sat in the selection process of the incubatees. The findings provide significant insights into how the selection of incubatees, and the criteria used during this process can influence various performance outcomes of the incubator, such as the success rate of incubated businesses, resource optimization, and the incubator's overall sustainability. Considering these findings, the study recommended modern business incubators must maintain a clearly understood selection process and criteria for prospective incubatees to ensure that the right candidates are reached and eventually selected. The calibre of management of the incubator is also critical in the performance of the incubatees and the incubator as such it is important that this be central in the process.

Keywords: Small Micro and Medium Enterprise; National Construction Incubator; incubatees; Nature of business; Selection criteria.

Table of Contents

DECLARATION.....	i
ACKNOWLEDGEMENT.....	ii
ABSTRACT.....	iii
List of Figures.....	vi
List of Tables.....	vii
ACRONYMS.....	viii
CHAPTER ONE: INTRODUCTION AND BACKGROUND TO THE STUDY	1
1.1. Background of the Study.....	1
1.2. Research Problem	3
1.3. Significance of the Study	3
1.4. Aim of the Study.....	3
1.5. Research Objectives.....	4
1.6. Main Research Question	4
1.7. Research Questions.....	4
1.8. Limitations of the Study	4
1.9. Structure of the report.....	4
2.1. Introduction.....	5
2.2. Origins of business incubators and in South Africa in particular	5
2.2.1. Types of Business Incubators.....	7
Source: Rao, M. (2013, p.12)	7
2.3. The Function and Purpose of a Business Incubator	7
2.4. Assessing Business Incubator Success.....	8
2.4.1. Access to science and technology expertise and facilities.....	8
2.4.2. Availability of funding.....	9
2.4.3. Quality of entrepreneurs	9
2.4.4. Stakeholder support.....	10
2.4.5. Supportive government policies.....	10
2.4.6. Competent and motivated management	10
2.4.7. Financial sustainability.....	11
2.4.8. Networking	11
2.5. Understanding the link between incubated selection criteria and incubator performance.....	11

2.6.	National Construction Incubator (NCI)	12
2.7.	Theoretical Framework.....	12
2.7.1.	Systems Approach Performance Model.....	12
2.7.2.	Real Option Theory	12
2.8.	Gaps Identified in Research.....	14
3.1.	Introduction.....	17
3.3.	Research Paradigm.....	18
3.5.	Research Process.....	19
3.6.	Research Method	20
3.6.1.	Population and the sample size.....	20
3.6.2.	Recruitment Strategy.....	20
3.6.2.	Study Site	21
3.6.3.	Data collection	22
3.8.1.	Trustworthiness.....	24
3.8.2.	Dependability.....	24
3.8.3.	Reflexivity	25
3.9.2.	Confidentiality.....	26
3.9.3.	Reducing potential harm to participants.....	26
3.10.	Conclusion	26
CHAPTER 4: FINDINGS AND DISCUSSIONS.....		28
4.1.	Introduction.....	28
4.2.	Findings and Analysis.....	28
4.2.1.	Profile of fifteen Respondents.....	28
4.2.2.	Profile of three respondents as support managers.....	42
4.3.	Discussion of the findings	47
4.4.	Conclusion	49
CHAPTER 5: CONCLUSION AND RECOMMENDATIONS		51
5.1.	Introduction.....	51
5.3.	Recommendations	54
5.4.	Limitations.....	55
REFERENCES.....		57
APPENDIX A: INFORMATION LETTER.....		67
APPENDIX B:INTERVIEW GUIDE		69

APPENDIX C: ETHICAL CLEARANCE.....72
APPENDIX D: NCI SELECTION CRITERIA EXAMPLE.....73

List of Figures

Figure 2.1: Real options in the business incubation process. Source: Posza (2019).	13
Figure 3.2: Research Process.	20
Figure 4.3: Age of respondents.	29
Figure 4.4: Gender of the respondents	29
Figure 4.5: Reason why the respondents joined the NCI incubator.	32
Figure 4.6: Number of respondents who have an entrepreneurial background.	36
Figure 4.7: Number of new employees in the company.	36
Figure 4.8: View of respondents of NCI business offers an inducive learning environment.	37
Figure 4.9: Respondent's views of the NCI selection criteria.	37
Figure 4.10: Views of respondents if selection criteria have contributed to the success of the incubates.	39
Figure 4.11: Response on their thinking that after exiting NCI the business will be sustainable and grow.	40
Figure 4.12: Impact on the performer of the incubator.	40
Figure 4.13: Improvement in the selection criteria	41
Figure 4.14: Development programs offered by the incubator that are helping	41

List of Tables

Table 2.1: Types of business incubators	7
Table 4.2: Nature of business the respondents are conducting in NCI business.....	30
Table 4.3: The number of years the business was registered and its operational years.....	31
Table 4.4: The service each respondent is receiving at the business incubator.....	34
Table 4.5: Types of challenges the respondents face in running their business.	34
Table 4.6: The data on how long the businesses have been in the NCI business.	35
Table 4.7: Respondents' recommendations to improve the selection criteria of NCI.....	38
Table 4.8: Responses if business training provided is market necessary and useful.....	38

ACRONYMS

BI	Business Incubations
BSU	Business Support Unit
CBD	Central Business District
DTIC	Department of Trade, Industry and Competition
NGO	Non-governmental Organization
SBDC	Small Business Development Corporation
SEDA	Small Enterprise Development Agency
SME	Small and Medium Enterprise
SMME	Small Micro and Medium Enterprise
NCI	National Construction Incubator

CHAPTER ONE: INTRODUCTION AND BACKGROUND TO THE STUDY

1.1. Background of the Study

Small, Medium, and Micro Enterprises (SMMEs) play a pivotal role in fostering economic development, particularly in developing nations. These enterprises are often the backbone of local economies, providing employment, driving innovation, and contributing to the expansion of the tax base (Mothoa & Rankhumise, 2021). Globally, SMMEs are recognized for their flexibility, responsiveness to market needs, and their ability to drive inclusive growth by engaging in a wide range of sectors (Mothoa & Rankhumise, 2021).

However, despite their importance, SMMEs face numerous challenges, including limited access to financing, a lack of skilled labor, inadequate infrastructure, and difficult regulatory environments (Mothoa & Rankhumise, 2021). The extent of these challenges varies significantly between developed countries and those in Africa, including South Africa (Njau, 2022). In developed economies, SMMEs tend to have better access to capital, a more supportive regulatory framework, and a more robust ecosystem for innovation. In contrast, many African nations and South Africa specifically experience a higher level of difficulty in securing funding, navigating red tape, and overcoming infrastructural hurdles, which hampers the potential for success and growth (Njau, 2022).

Moreover, the success rates of SMMEs differ considerably between these contexts. In developed countries, SMMEs tend to benefit from more established networks, better technology adoption, and stronger institutional support, leading to a higher survival rate in their early years (Mothoa & Rankhumise, 2021). Conversely, in Africa and South Africa, SMMEs often face systemic barriers that hinder their long-term sustainability, including political instability, fluctuating economic conditions, and challenges in scaling operations (Mothoa & Rankhumise, 2021). Understanding these differences is crucial for crafting policies and interventions that will address the unique needs of SMMEs in these regions, ensuring that they can thrive and contribute effectively to national economic development (Njau, 2022). In many countries across the globe, the business incubator phenomenon has gained significant momentum to help and support SMMEs. Recent research from different scholars points to the importance of selection criteria if these incubators are to succeed.

The incubatee selection criteria the incubators use has in recent times therefore become central and crucial to the performance and success of the incubators. This view is backed up by Wachira, Ngugi, and Otieno (2017, p.28) who “contended that the crucial aspect that contributes to the success of any incubator is unquestionably the selection process of the prospective incubatees”. Ssekiziyivu and Banyenzaki (2021, p.58) state that the “number of graduated companies will be directly proportional to the quality of the selection process”. Consequently, to these arguments, the goal of selection criteria must be to classify prospective incubatees whose probability to succeed is very high. When business incubators are selective, they ensure that only incubatees with high prospects are supported in starting their businesses and growing (Ssekiziyivu and Banyenzaki, 2021). According to Njau (2022, p.78), amongst options that the incubators possibly use to select “the incubator include the prior employment experience and technical expertise of the entrepreneur or the venture team, the properties of the market the venture is aiming at, the properties of the product or service and the profit potential of the venture”. In principle, “these may be divided into two overall approaches: selection focused primarily on the idea and selection focused primarily on the entrepreneur or the team” (Njau, 2022, p.79). Wachira *et al.* (2017, p.56) further argue that poor selection criteria of incubatees contribute to inadequate and satisfactory sustainability and growth and “such a situation can be resolved by coming up with clear selection criteria and using experienced staff to select appropriate business start-ups for incubation in the incubator”.

The main focal point of this study is to comprehend the selection process and criteria of the incubatees and the effect it has on the performance of the incubator which is going to be a case study. This research will have a specific focus on the National Construction Incubator (NCI), an incubation centre under eThekweni Metro supported by SEDA. The motivation and rationale behind the study are to understand how this business incubator selects the prospective incubatees and whether this process has any impact on the performance of the incubator. Scholars like Sahay and Sharma (2009, p.86) have always argued that “business incubators are critical support in the successful development of entrepreneurial enterprises”. Business incubators have thus been viewed as a strategic tool to support in nurturing and development of small enterprises so that they can be established and be on a growth trajectory such that they significantly contribute to the growth of the economy. This chapter therefore proceeds as follows: 1.2 discusses the research problem, 1.3 discusses the significance of the study, 1.4 outlines the aim of the study, 1.5 details the research objectives, 1.6 main question of the study,

1.7 outlines the research questions, 1.8 discusses the scope of the study, 1.9 limitations of the study and, 1.10 details the structure of the report.

1.2. Research Problem

In the emerging economy context, business incubation is a significantly growing trend. This is probably because small enterprise development has always been designed to impact socio-economic development (Lose *et al.*, 2016). However, the performance evaluation of business incubators has been difficult because of the generic support they provide to small businesses that are functioning in diverse sectors and levels of their development which has shown to be ineffective most of the time. Therefore, the importance of understanding the performance of business incubators is very crucial, particularly their ability to enable small businesses to make significant contributions to economic growth. There is a growing sentiment among scholars that the selection process of incubatees is critical to the performance of the incubator (Sahay and Sharma, 2009; Allie-Edries and Mupela, 2019). The fundamental question that remains is how much of an impact does incubatee selection process has on the incubator's performance.

1.3. Significance of the Study

This study and its significance are premised on the prospective guidance that it will provide in having a deeper understanding of incubatee selection criteria and the significant impact it has on the National Construction Incubator performance. The research recognizes the complex nature of studying the performance of incubators. Ramluckan (2010) argues that there is a great diversity of these incubators, and the performance level is not the same. Studying the selection criteria of incubators holds significant value for several key reasons, particularly for entrepreneurs, policymakers, investors, and academic researchers (Ssekiziyivu and Banyenzaki, 2021). Incubators play a crucial role in fostering the growth of startups and small businesses, and understanding how they select participants helps ensure the effectiveness and relevance of their support programmes (Ssekiziyivu and Banyenzaki, 2021).

1.4. Aim of the Study

The research aims to assess the National Construction Incubator's selection criteria and its role on its performance.

1.5. Research Objectives

1. To explore the role of the incubatee selection criteria on the National Construction Incubator's performance.
2. To explore the role of the incubatee selection process on the performance of the business incubator.

1.6. Main Research Question

What is the role of the incubatee selection criteria used by the National Construction Incubator on its performance?

1.7. Research Questions

1. What is the role of the incubatee selection criteria used by the National Construction Incubator on its performance?
2. What is the role of the incubatee selection process on the performance of the business incubator?

1.8. Limitations of the Study

The limitations of the research may involve time restraints, conducting the research has the potential to take a considerable amount of time, and this may be attributed to not easily accessing potential participants in this research.

1.9. Structure of the report

Chapter 1 of the study provides an introduction, outlining the problem statement, research objectives, and key research questions that guide the investigation. Chapter 2 offers a comprehensive review of relevant literature, setting the theoretical framework for the study. In Chapter 3, the research methodology is detailed, explaining the design, approach, data collection methods, and analysis techniques employed in the study. Chapter 4 presents the findings, followed by a discussion of the results of the research questions and existing literature. Finally, Chapter 5 concludes the study, summarizing the main findings and offering recommendations for future research or practical applications based on the results.

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

The fundamental aim of this chapter is to give an overview of the relevant literature to this study being undertaken. The business incubation concept is new in the growing and developing economies including South Africa in this context. It is paramount to elucidate the critical role this concept plays in the modern economy and the relevance thereof. This literature amongst other things, therefore, unpacks the origins of business incubations, and their beginning within the context of South Africa and further investigates the impact of incubatee selection criteria on the business incubators' performance. The literature further seeks to give insight into the specific incubator that will be used in the study. This chapter therefore proceeds as follows: 2.2 discusses the origins of business incubators, 2.3 discusses the function and purpose of a business incubator, 2.4 discusses the assessments of business incubator successes, 2.5 discusses the link between incubated selection criteria and incubator performance, 2.6 discusses the National Construction Incubator (NCI), 2.7 outlines the theoretical framework, 2.8 discusses gaps identified in research, and 2.9 conclusion.

2.2. Origins of business incubators and in South Africa in particular

The 1950s saw the establishment of the first business incubator in New York, “in response to plant closures in Batavia and New York” (Aernoudt, 2004, p.128). Joseph Mancuso in “1959 initiated the first business incubator, Batavia Industrial Centre, in America” (Al-Mubaraki and Wong, 2011, p.74). This for Joseph Mancuso was out of an economic need which resulted in him opening a privately owned space for profit-generating entities and providing support in the form of rental space (Al-Mubaraki and Wong, 2011). After this, there was a sporadic evolution of incubators across the globe, and this sparked a lot of interest among researchers (Aernoudt, 2004). There has been an increasing focus on this business incubator phenomenon and thus a lot of studies have been unfolding.

According to Buys and Mbewana (2007, p. 17), South Africa saw the “first establishment of a business incubator in 1995, and this was spearheaded by the then Small Business Development Corporation (SBDC)”. Business incubators “have been established to address the lack of entrepreneurial training and development, which is said to be a challenge for individuals who want to set up businesses” (Buys and Mbewana, 2007, p.37). These incubators were primarily

established in townships and had access to important developed infrastructure. The essential role business incubators play is that they minimize potential failure rates and increase the probability of success of a company being incubated (Lose, Tengeh, Maziriri, and Madinga, 2016). Business incubators “aim to close the gap by providing small businesses with access to professional business services required to help SMEs formalize their operations” (Lose *et al.*, 2016).

Business support services also “include providing coaching and mentoring capabilities to assist SMMEs in practically developing and managing the strategic objectives of the firm and handling any daily operation requirements” (Grigoria *et al.*, 2012; Mokgoko, 2015, p 86). In a business development or coaching and mentoring session, various modules are usually addressed. These include creating business proposals and plans, formulating digital and marketing strategies, overseeing finances, managing projects from planning to implementation, handling interpersonal conflicts, and navigating compliance and legal obligations. (Grigoria *et al.*, 2012; Mokgoko, 2015).

Presently, South Africa's business environment features two main incubation initiatives: technology centres and business incubators. These entities are primarily designed to promote economic growth, focusing particularly on small and medium-sized enterprises (SMEs) in high-technology sectors. (Gwija *et al.*, 2014; SEDA, 2014). Moreover, there is a significant emphasis on enhancing the development and expansion of black-owned SMEs in South Africa, driven by the country's post-apartheid reconstruction efforts (Masutha and Rogerson, 2014). To bolster small, micro, and medium enterprises, the South African government, through agencies like SEDA, has established numerous national business incubators. (SEDA, 2014; DTI, 2014). These government agencies are tasked with empowering business incubators and incubation centers. They provide financial support and state-of-the-art technological resources, such as prototypes, to these incubators. Additionally, they promote public-private partnerships to sustain support for business incubators (Cullen *et al.*, 2014).

2.2.1. Types of Business Incubators

Table 1: Types of business incubators

Technology Incubators	These incubators were initially affiliated with and backed by universities, state governments, and relevant industries, with students and professors playing pivotal roles as founders of businesses.
Traditional Incubators	These incubators were established to address unemployment issues, aiming to foster regional or local development.
Cooperative/Social Incubators	The focus of this incubator was to initiate various projects where universities and community members aimed to alleviate poverty and associated challenges. They adapted the incubator model for social purposes, intending to generate employment opportunities and promote economic growth.
Private Incubators	The majority of private incubators specializing in Information Technology emerged around 1999. These incubators were funded mainly by venture capitalists and IT professionals. A key characteristic of these private incubators was their investment of capital in promising client firms.
Corporate Incubators	This particular type of incubator operates within a large company setting, focusing on selectively nurturing new ventures to capitalize on innovative opportunities.

Source: Rao, M. (2013, p.12)

2.3. The Function and Purpose of a Business Incubator

Incubators offer a diversity of services designed to address the unique needs of their “specific environment and location” (Theodorakopoulos et al., 2014, p.89). Government backing for incubation often stems from the acknowledgment of SMMEs as vital drivers of job creation and market growth (Al-Mubaraki & Busler, 2010; Rogerson, 2017). As Lalkaka (2001) highlights, incubators typically provide cost-effective packages that include physical office

space, shared resources, counselling, information, training, and access to both financial and professional services. Building on this, Rogerson (2017) adds that incubators also offer administrative assistance, business consulting, specialized training programs, technical support, financial aid, networking opportunities, and marketing help. In a similar vein, Albort-Morant and Oghazi (2016) underscore the importance of providing access to infrastructure, expertise, operational guidance, effective management practices, financial resources, networks of key stakeholders, and opportunities to enter new markets. These elements are crucial for nurturing and growing small businesses throughout and beyond their incubation phase.

2.4. Assessing Business Incubator Success

Entrepreneurs entering a business incubator significantly increase their chances of success due to several factors. These entrepreneurs recognize the need for specific knowledge and support, prompting them to seek out incubators where they can access critical resources and guidance. (Lose and Tengeh, 2015). According to Mokgoko (2015, p.25) advised that “business incubators are a study in contrasts, each catering to its potential entrepreneurs, in a given cultural milieu, conditioned by the available infrastructure and policy framework.” Business incubators play a crucial role in supporting emerging growth companies through their vulnerable startup phase, helping them survive and thrive. However, not all business incubators achieve success. Consequently, numerous researchers have examined factors influencing the success of business incubation, as reported in the literature (Buys and Mbewana, 2007). Some of these factors are variations of the same core concept, while others are considered less applicable to present conditions in South Africa, such as early-stage incubation and entrepreneurial culture. (Cassim, 2001). There are potential success factors of incubation, and these are discussed below:

2.4.1. Access to science and technology expertise and facilities

The most effective business incubation environments are located in regions where access to scientific and technical expertise, along with essential infrastructure, is readily available. These resources are typically provided by universities or scientific organizations such as the CSIR and other science councils. However, entrepreneurs are often spread across different geographical locations, which presents a challenge for incubators in reaching everyone who could benefit from their services. Entrepreneurs in remote or rural areas, in particular, often struggle to access support from incubators (InfoDev, 2010).

According to Caleb *et al.* (2012), Businesses often encounter barriers in accessing technology-driven facilities and struggle to obtain both tangible and intangible resources. According to Ndedi (2009, p.56), the “nature of these challenges varies depending on the type of incubation, further complicating the situation, and these incubators must also provide potential youth entrepreneurs with information on appropriate space and flexible leases existing in the market, shared basic business services and equipment, technology support services and assistance in obtaining the financing necessary for company sustainable growth”. Therefore, the absence of technology-driven facilities hinders an incubator's capacity to fulfil the requirements of its clients and SMEs. Buys and Mbewana (2007) similarly emphasize that an ideal business incubation site should provide access to scientific and technical expertise, along with supportive infrastructure.

2.4.2. Availability of funding

Incubators must support their clients in securing funding and providing services related to tax and risk management. An ideal incubator environment offers convenient access to various financing options, including government grants, low-interest loans, angel investors, and venture capital. While state-owned business incubators have traditionally been funded and managed by the government, there is an increasing shift toward models funded by private entities and universities (Koshy, 2010; Lose *et al.*, 2016). University-affiliated incubators are generally financed either directly by the universities or through a combination of government and private sector funding.

2.4.3. Quality of entrepreneurs

While this study revealed a limited linkage between rigorous selection criteria and incubator success, it underscored that the effectiveness of incubation hinges largely on the calibre of entrepreneurs involved (Caleb *et al.* (2012). Some business incubators prioritize educational programs based on their offerings rather than the specific needs of entrepreneurs, lacking the flexibility to adapt (Jordan, 1998 in InfoDev, 2010). Similarly, Wilber and Dixon (2003) noted that business incubators struggle to equip small business owners and managers with essential skills for thriving in competitive markets. They suggest that fostering entrepreneurship development is more crucial than strict selection criteria. According to Buys and Mbewana (2007), the success of an incubation program relies heavily on entrepreneurs possessing

adequate knowledge, a readiness to learn, and a willingness to take calculated risks to achieve success.

2.4.4. Stakeholder support

The success of incubators depends on the active participation and support of stakeholders. These stakeholders include “local business sponsors, government entities, the broader community, venture capital providers, entrepreneurs, and incubator management” (Kirsty, Cooper, and Schindler, 2011, p.65). Stakeholders need to show clarity, consistency, and cooperation, ensuring alignment with the needs and capacities of the local community they serve. Reaching an agreement on an undertaking that clearly “defines the incubator’s role within the community and setting measurable objectives to achieve this mission is also vital” (Beats, 2013, p.45). According to Beats (2013), incubators should foster stakeholder support and build a strong network of resources.

2.4.5. Supportive government policies

The effectiveness of programs aimed at promoting entrepreneurship hinges significantly on widespread agreement regarding economic and industrial policies (Theodorakopoulos et al., 2014). Initiatives like business incubators are meaningful only when the connection between entrepreneurship and economic advancement is recognized across all levels of government. Therefore, governmental policies should focus on establishing and maintaining environments that facilitate business incubation, incorporating the characteristics outlined in this report.

2.4.6. Competent and motivated management

The effectiveness of business incubators largely relies on the competence of their management teams (Cassim, 2001; Mokgoko, 2015). The manager must possess a solid business background, entrepreneurial acumen, strong leadership and organizational skills, and a well-established network within the community. The management team needs to have clear, “measurable objectives to monitor performance, and incentives should be provided to encourage and recognize exceptional performance” (SEDA, 2014, p.4). Incubators must recruit and adequately compensate capable managers who can successfully execute the incubator’s mission (DTIC, 2014).

2.4.7. Financial sustainability

Incubators need to function as financially viable entities, sustaining themselves through methods like equity stakes, royalties, and ongoing subsidies (Salem, 2014). The ultimate measure of an incubator's success lies in its ability to achieve self-sustainability (DTI, 2014; SEDA, 2014). Incubators should exemplify dynamic models of efficient and sustainable business practices. Interestingly, our research found a limited correlation between the implementation of comprehensive business plans and incubation success, potentially influenced by the early stage of incubation in South Africa (Masutha and Rogerson, 2014). It's possible that business plans have not yet had sufficient time to demonstrate their impact.

2.4.8. Networking

Partner networks are crucial for the progress of incubators, as they enable the sharing of knowledge derived from both successes and failures. Networking is also critical in opening up “new market opportunities for entrepreneurs and program graduates” (Beats, 2013; Cullen et al., 2014, p.76). These networks often include universities, industry connections, and “professional service providers such as lawyers, accountants, marketers, venture capitalists, angel investors, and volunteers” (Beats, 2013, p.75). Government policies should prioritize building and sustaining environments that support incubation, focusing on eight key success factors (SEDA, 2014). These factors can also act as industry benchmarks to assist incubator managers in effectively supporting their clients.

2.5. Understanding the link between incubated selection criteria and incubator performance.

Several scholarly works show that the business incubator performance and success can also amongst other factors be attributed to the incubatee selection criteria (Njau, 2022). This implies that prospective incubatee candidates are critical to the performance of the business incubator. Kibai (2018, p. 45) strongly argues that “the number of graduated companies will be directly proportional to the quality of the selection process”. Therefore, a business incubation must be deliberate in being selective to ensure that the incubatees are high performing. Some scholars have recently argued that the incubatee selection process can be viewed in two respects and that includes the “idea-focused selection and entrepreneur selection focused” (Njau, 2022). Njau (2022, p. 25) argues that “in the idea-focused selection approach, the incubator manager evaluates candidate incubatees based on market and profit potential, while the entrepreneur-focused approach evaluates the characteristics of the entrepreneur, including his experiences

and skills”. This largely implies that the poor growth and sustainability of incubators can be attributed in part to the poor selection process or criteria of incubatees. This can be mitigated by using experienced staff to perform this critical task of selecting appropriate incubatees to be incubated in an organization.

2.6. National Construction Incubator (NCI)

The National Construction Incubator (NCI) was conceptualized and established as early as 2006 as a public benefit organization, charged to primarily help develop emerging contractors in South Africa. The main purpose of NCI is to develop and grow emerging construction businesses through the merging of business management and technical skills that will ensure the efficiency and effectiveness of that business. NCI does this within 36 months and by the time the constructor exits the program the expectation is that it would have advanced at least a step higher. It is also worth noting that NCI has a post-incubation that is dedicated to assisting contractors who have exited the incubator after a 3-year duration.

2.7. Theoretical Framework

2.7.1. Systems Approach Performance Model

The systems theory or approach is predicated upon the idea that everything in an organization is interrelated and depends on each other, which is also based on both internal and external factors (Connolly *et al.*, 2018). Connolly *et al.* (2018) further argue that all internal activities of a business incubator such as the service offered, and the criteria or process used by prospective incubatees have a direct influence on the incubator's performance. It is also worth noting the fact that not only the internal and external activities have a direct impact on the performance of the incubator but also affect the operations of the incubatees. According to Connolly *et al.* (2018, p.86) this theory “allows evaluating the internal processes of the incubator and the internal or external factors involved in the generation of outputs”.

2.7.2. Real Option Theory

Posza (2019) argues that real options theory in the context of the business incubation process perceives the incubator as an organization that creates real options through a methodical selection of new incubatees. Furthermore, this theory assists the business incubator in managing, controlling, and mentoring incubatees at different stages of development once

selected. In the context of this theory, each stage of the incubation process is critical to the survival of the incubatees and ultimately the overall performance of the incubator.



Figure 1: Real options in the business incubation process.

Source: Posza (2019, p.34).

2.7.2.1. Pre-incubation

The pre-incubation phase, according to Allie-Edries and Mupela (2019: 76), is “critical because it deals with identifying potential entrepreneurs through a screening and selection process. Although many authors disagree on the criteria, two approaches are commonly used”. The first approach is concerned with the potential entrepreneur's prior work experience and technical expertise. The Business incubator management team must be able to assess capability (Allie-Edries and Mupela 2019: 76). The alternative approach centers on evaluating the business concept. To merit serious consideration, business incubator management must possess comprehensive expertise and capabilities to evaluate the feasibility of these ideas effectively.

2.7.2.2. Incubation

Mentorship is an important part of the activities of a business incubator. According to Van der Spuy (2019), the business incubator must be capable of transforming weak businesses into self-sustaining enterprises. According to Van der Spuy (2019), achieving this level of success

requires that the business incubator offers a comprehensive array of services, encompassing facilities, skills enhancement, training, mentorship, and financial assistance.

2.7.2.3. Post-incubation

According to Allie-Edries and Mupela (2019), a crucial aspect of a Business Incubator is the short-term duration of incubation. The aim is for businesses to become financially sustainable and ultimately successful after this period. While creating new businesses is a primary objective of business incubators, the authors argue that the survival rate of these enterprises is more critical. Allie-Edries and Mupela (2019) further note that although incubators typically maintain contact with their graduates to provide ongoing support, there are cases where this contact is lost. In such instances, there is no monitoring of the success and survival of the businesses once they leave the incubator.

2.8. Gaps Identified in Research

Government policies should focus on establishing and maintaining environments that support the growth of business incubators. The factors highlighted here can also serve as industry standards to assist incubator managers in enhancing their support for clients. There is a gap in the selection criteria of the incubatees and the impact it has on the performance of the business incubators (Kibai, 2018).

2.9. Conclusion

In Chapter 2, the literature review explored the various dimensions of incubatee selection criteria and their influence on the performance of national construction incubators. The review synthesized existing research on the key factors that shape incubatee selection processes, including the role of entrepreneurial characteristics, business potential, and industry-specific competencies in the construction sector. Additionally, the review examined the theoretical foundations and practical applications of incubators as vehicles for fostering innovation, growth, and sustainability in emerging construction businesses.

A central theme emerging from the literature is the critical importance of establishing clear, transparent, and evidence-based selection criteria to identify promising start-ups that align with the incubator's objectives. The review highlighted that incubators often rely on a mix of qualitative and quantitative factors when evaluating candidates, such as the founders'

entrepreneurial experience, market knowledge, innovation potential, and scalability of the business model. In the context of the construction industry, specialized factors such as technical expertise, project management capacity, and an understanding of regulatory frameworks also play a significant role in the selection process.

Moreover, the literature revealed that incubatee selection criteria not only impact the immediate success of the incubator program but also have long-term implications for the sustainability and competitiveness of the broader construction industry. Incubators that adopt a rigorous selection process are more likely to support ventures with high growth potential, which in turn contributes to the overall performance and reputation of the incubator. On the other hand, lax or poorly defined selection criteria can result in the admission of less viable start-ups, potentially diminishing the incubator's ability to deliver tangible outcomes for both the entrepreneurs and the industry at large.

The review also identified gaps in the current body of research, particularly regarding the specific ways in which incubatee selection criteria affect the performance of construction incubators in different national contexts. While much of the existing literature focuses on general entrepreneurship incubators or incubators in other sectors, there is limited exploration of construction-specific incubator models. This underscores the need for further empirical studies that focus on the construction industry to refine and contextualize selection criteria that can optimize incubator performance.

In conclusion, Chapter 2 has established the foundational understanding that incubatee selection criteria are pivotal to the success of national construction incubators. By carefully selecting incubatees based on a comprehensive set of criteria that encompass both entrepreneurial and industry-specific factors, incubators can better position themselves to achieve their objectives of nurturing innovative, sustainable, and high-performing start-ups. The literature also points to the importance of further research to develop tailored frameworks for construction incubators, to enhance their impact on the national construction sector.

The next chapter details a thorough overview of the research methodology employed in this study. It outlines the research approach and philosophical stance, the overall research design, and the methods used for data collection and analysis. The chapter also explains the rationale for choosing specific research methods over others, highlighting how these choices align with

the objectives of the study. By detailing these elements, the chapter demonstrates how the selected methodology supports the investigation's goals and ensures the validity and reliability of the findings.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Introduction

Research methodology “refers to the methods and strategies used to gather, select, assess, and analyze data related to a specific topic” (Bryman & Bell, 2015, p.98). This section of the research paper allows readers to gauge the overall trustworthiness and credibility of the study. For this study, which examines the National Construction Incubator's selection criteria and its impact on performance, a strong research methodology rooted in qualitative epistemology is required. Participants in such a detailed study must be able to share their subjective views on the phenomenon being investigated while ensuring the research maintains objectivity. As a result, this study adopts a qualitative approach, which will be explained in detail in the following sections. This chapter is organized as follows: Section 3.2 addresses the research approach, 3.3 covers the research paradigm, 3.4 outlines the research design, 3.5 discusses the research process, 3.6 presents the research method, 3.7 explains data analysis, 3.8 reviews data quality control, 3.9 covers ethical considerations, and 3.10 concludes the chapter.

3.2. Research Approach of the study

Research can be approached through qualitative or quantitative methods. Sulaiman and Kura (2012, p.89) define “quantitative research as utilizing statistical tools for data collection and analysis”. For this study, a qualitative approach was selected to gain deeper insights into specific understandings. Qualitative research focuses on exploring issues or problems by allowing individuals to share their personal stories and lived experiences. Goundar (2012) explains that qualitative research is scientifically valid as it relies on descriptive, non-numerical data expressed through words instead of numbers. Weinreich (2009) emphasizes that qualitative research seeks to understand the perspectives of the target audience by immersing the researcher in their culture or context, fostering direct interaction with the subjects being studied. In qualitative research, the researcher plays a key role as the primary instrument for data collection, and the findings may be influenced by the researcher’s perspective.

Qualitative methods include “techniques such as direct observation, document analysis, participant observation, and open-ended interviews” (Bryman & Bell, 2015. P. 16). These methods are designed to explore the meanings that people attach to social phenomena and uncover the mental processes behind their behaviors. Cresswell (2014, p. 32) states that “qualitative inquiry is typically conducted in natural settings, where the researcher serves as

the primary instrument for both data collection and analysis.” The strength of qualitative research lies in its capacity to provide detailed descriptions that offer rich, in-depth insights into everyday actions and meanings from the viewpoint of the participants. This approach highlights the importance of the researcher’s direct engagement with and understanding of the participants' lived experiences on the topic at hand (Nassaji, 2015). Qualitative inquiry tends to prioritize social processes and values the relationship between researcher and participants, rather than focusing solely on outcomes.

3.3. Research Paradigm

Before delving into the paradigmatic assumptions of this study, it is essential to first define the concept of a "paradigm," its elements, and different viewpoints. Riazi and Candlin (2014, p.89) describe a “paradigm as a core worldview or set of beliefs and principles that guide research design”. Guba and Lincoln (1994, p. 104) define it as the “dominant belief system or worldview that directs researchers in not only their methodological choices but also in fundamental ontological and epistemological considerations.” This indicates that scholars bring a variety of complex philosophical assumptions and perspectives to their work, which may sometimes align or conflict.

Creswell (2007, p. 15) points out that the "research design process begins with the philosophical assumptions that researchers hold when conducting their studies." These assumptions, shaped by their paradigms or worldviews, deeply influence how research is carried out and interpreted. Hesse-Biber (2015, p.64) emphasizes the need to comprehend “the relationship between ontological and epistemological assumptions, meta-theoretical foundations, research questions, and methodology when defining one’s paradigmatic perspective as a researcher”.

This study focuses on semi-urban enterprises in South Africa, specifically assessing the selection criteria and performance of the National Construction Incubator in Durban. The research approach theory was interpretivism, aiming to mitigate potential biases during data collection (Bryman and Bell, 2015).

Interpretivists prioritize understanding people's subjective experiences of the external world (Moser and Korstjens, 2018; Sim et al., 2018). They reject the idea of a single correct path to knowledge and believe that knowledge is constructed through human interpretation and

reasoning (Aliyu et al., 2014; Taherdoost, 2022). Interpretivists employ methods that generate qualitative data, focusing on deep exploration of the phenomenon of interest. While numerical data may be collected in interpretive research, it is not used to draw deductions or conclusions but rather to enrich the understanding of qualitative findings. Tables and figures in qualitative research serve to provide additional depth and context to qualitative descriptions.

3.4. Research Design

Creswell and Creswell (2018) define research design as a systematic plan that outlines how data will be collected in a study, providing the overall structure for the research. Swedberg (2020) and Tuovila (2020) further explain that it includes the selection of subjects, research settings, and data collection methods to address the research questions. They highlight that a well-planned research design is essential for producing reliable and credible results. Durrheim (2004, p. 29) “characterizes research design as a strategic framework that directs the execution of research methods”, acting as a vital link between the research questions and their implementation.

3.5. Research Process

The study proceeded through three distinct phases to accomplish its research goals, as illustrated in Figure 3.1. Initially, the first phase focused on orienting the study, which involved drafting a research proposal and clearly defining the research problem to ensure a smooth research process. Secondary data sources were consulted for guidance during this phase. The second phase involved implementation and data collection using a semi-structured research instrument. In the final phase, the research was concluded by compiling the dissertation, conducting proofreading and editing, and preparing for the final submission.

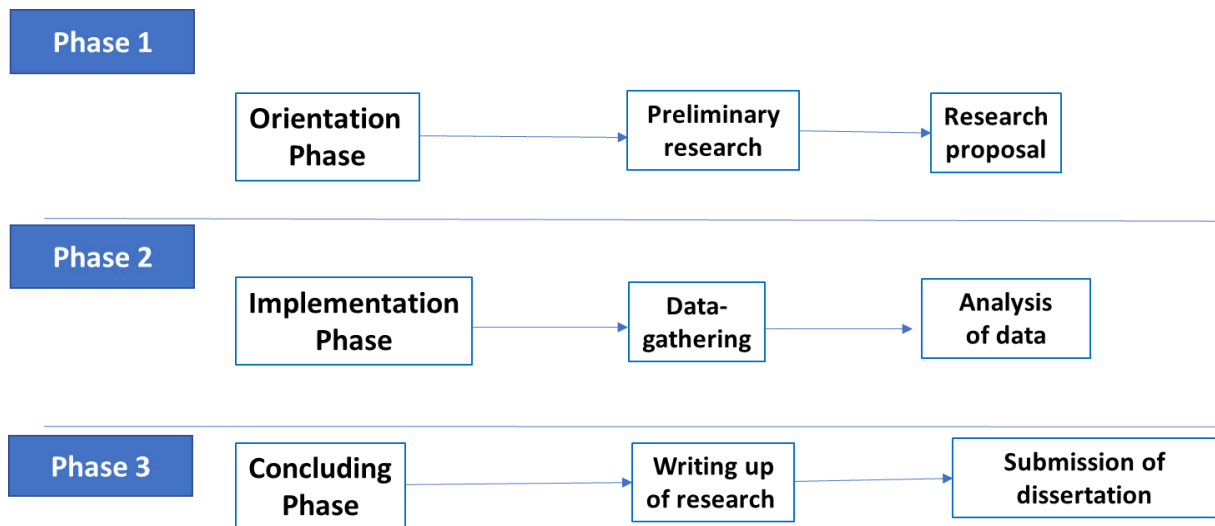


Figure 2: Research Process.

Source: (Author’s Design, Ellingson, 2011 & Hesse-Biber, 2015)

3.6. Research Method

3.6.1. Population and the sample size

Busetto *et al.* (2020, p.33) defined the “target population as the entire pool of items or individuals from which the researcher wants to conclude and may by nature be homogenous or heterogeneous”. The aim of this study was on the management of the National Construction Incubator and its incubatees as the target population. These groups were selected because they encompassed key stakeholders capable of offering valuable and insightful information for the research. Participants from these organizations were chosen according to the recruitment strategy outlined in section 3.5.2. Sample sizes were determined based on their potential to provide comprehensive and relevant insights into the study topic, aligning with the purposive sampling approach in qualitative research (Bryman and Bell, 2015, p. 51). The non-probability sample size for the incubator will be a maximum of four business support managers who sit in the selection process of the incubatees and a maximum of 15 incubatees who are at the centre.

3.6.2. Recruitment Strategy

Polit and Beck (2004, p.290) define “eligibility criteria as the criteria that specify the characteristics that people in the population must possess, to be considered for inclusion in a study”. The admissibility criteria for inclusion in the study under discussion were that they had to be:

- A registered SMME within the eThekweni Municipality; and
- Incubated in the National Construction Incubator; or
- The business support managers.

3.6.2. Study Site

The study will be conducted at the National Construction Incubator, M76 Bhungezi Road, KwaMashu, Durban. Most of the business units with the NCI are independently operated by SMMEs in the cluster setting. These are known to be previously advantaged areas that are situated 35 kilometres on the outskirts of Durban CBD.

3.6.2. Sampling

Sampling is the “process of selecting individuals, objects, or events that represent a specific population”, as explained by Sekaran and Bougie (2016, p. 235). Since studying an entire population is often impractical, sampling is necessary to gather data efficiently. A carefully designed sampling strategy ensures that the selected sample is representative of the entire population. The cases from which the sample is chosen are known as the sampling frame (Taherdoost, 2017). Du Plooy-Cilliers et al. (2014, p. 257) define the “sampling frame as a detailed list of eligible individuals or units within a population”. The unit of selection shapes the composition of the sampling frame (De Vos et al., 2016), and any mismatch between the abstract population and the sampling frame can reduce the validity of the sampling process (Neuman, 2014).

Sampling involves selecting a subset from a larger population (Bryman and Bell, 2015). “Purposive sampling, a non-probability method, involves choosing participants based on specific characteristics” relevant to the study (Rahayu and Day, 2017, p.78). This technique allows for subjective judgment and is particularly useful when a quick selection of a targeted sample is needed, without focusing on proportional representation (Crossman, 2018).

In qualitative research, Gentles et al. (2015, p. 1775) describe “sampling as the intentional selection of data sources to meet research objectives”. Purposive sampling is ideal for studies where the characteristics of the population align with the study’s goals. This study specifically used homogeneous purposive sampling as the most fitting approach. In purposive sampling and other non-probability methods, not all units or participants in the population are eligible for selection (Creswell and Creswell, 2018). Non-probability sampling depends on the availability and accessibility of participants (Babbie, 2010).

3.6.3. Data collection

Gravetter and Forzano (2013) and Bryman and Bell (2015, p.67) describe "data collection as the organized process of gathering information needed to address research" question. In this study, qualitative in-depth interviews were used to collect relevant data. These interviews were chosen for their suitability in exploratory research like this one. Qualitative interviews can be unstructured, semi-structured, or structured (Kersop, 2019). Unstructured interviews involve informal, guided conversations where the researcher observes and takes notes, identifying key informants to provide insights (Gravetter and Forzano, 2013).

The primary method for this study was semi-structured interviews, which are commonly used in qualitative research. These interviews are typically scheduled, consist of open-ended questions, and allow for additional questions to arise naturally during the conversation. They can be conducted one-on-one or in groups, usually as a one-time event. Semi-structured interviews were employed in this study to explore social issues in-depth (Bryman and Bell, 2015). In contrast, structured interviews use fixed questionnaires, while semi-structured interviews allow for a flexible approach with questions and themes that evolve during the interview process (Bryman and Bell, 2015).

According to Kabir (2016, p. 202), “data collection is the systematic process of gathering and measuring information on variables of interest in a structured manner, enabling researchers to address research questions, test hypotheses, and assess outcomes”. Primary data collection for this study spanned two months and this was the month of April and May 2024, contingent upon respondent availability. To achieve the study's objectives, the following data collection methods were employed:

3.6.3.1. Interview

An interview is a widely utilized method for gathering information from individuals. According to De Vos et al. (2016, p. 73), an “interview involves verbal communication, often conducted face-to-face or via telephone”, aimed at eliciting data from business support managers and incubatees. In this study, “semi-structured interviews were employed as the primary data collection” instrument (De Vos et al. 2016, p. 73). This approach was deemed appropriate due to the diverse backgrounds of the respondents and their subjective perspectives on assessing the National Construction Incubator's selection criteria and its impact on incubatee performance.

During the interviews, digital audio recording was used to capture the conversations, which were later transcribed for thematic analysis. Conducting face-to-face interviews allowed for flexibility and the opportunity to follow up on important points raised (De Vos et al., 2011). The interview guide, included as Annexure A, contained open-ended questions that were created and refined by the researcher to align with the study's key themes. The semi-structured format of the interview guide was modified as needed to address various aspects, allowing for the collection of respondents' subjective opinions and perceptions on topics such as:

1. Exploring the link between selection criteria and the performance of a business incubator.
2. Determining whether the incubatee selection process influences the incubator's performance.

These themes helped ensure the study remained focused on its core objectives.

3.7. Data Analysis

Leedy and Ormrod (2014, p. 76) suggest that “qualitative research analysis involves interpreting data to understand the broader context and its meaning”. However, analysing qualitative data is often regarded as the most difficult part of a case study, as it requires the researcher to examine, classify, and assess information to answer the research questions. In this study, the researcher compared the responses from participants to identify patterns and variations in addressing the research queries. A thematic analysis, which is a form of content analysis, was used to analyze the collected data. Thematic analysis is an “imperative qualitative method that enables researchers to extract meaningful patterns from qualitative data” (Goundar, 2012, p.157). It's a flexible tool that works across a variety of data types and research

questions, allowing for both inductive and deductive approaches. While it's accessible and offers rich insights, it requires careful and systematic execution to ensure that the analysis is grounded in the data and accurately represents the participants' experiences, or the phenomena being studied. Each participant's textual data was anonymized (e.g., Participant X), coded according to pertinent themes, categorized by concepts, and presented in a tabular layout. The textual excerpts were then analyzed to uncover key concepts, themes, and patterns (Goundar, 2012).

Qualitative data collected for this study consisted of textual information, including interview notes, transcripts, and recordings, aimed at conducting a thorough analysis to draw valid conclusions from the data gathered.

3.8. Data Quality Control

The next section details the methods employed to achieve reliability and validity in qualitative research. It also discusses the steps undertaken in this study to ensure these aspects are upheld.

3.8.1. Trustworthiness

Ensuring the credibility of findings holds significant importance in qualitative research. The researcher dedicated ample time to each interview, ensuring comprehensive coverage of all aspects pertinent to the research questions. This approach facilitated a deeper understanding of the phenomena under study, thereby bolstering the credibility of the findings. Moreover, after each interview, a brief review was conducted with participants to validate the information shared, despite the time-intensive nature of this process. Subsequently, the researcher returned the final themes and analysis to participants for feedback. This methodological rigor contributed to enhancing the study's reliability. Additionally, before commencing data analysis, the researcher actively assessed the quality and completeness of the collected data to ensure its thoroughness and reliability.

3.8.2. Dependability

When discussing reliability, Robson and McCartan (2016) contend that positivists employ methods aimed at ensuring consistent results when their studies are replicated using the same methods and participants. However, the dynamic nature of phenomena in qualitative research can pose challenges in achieving such consistency (Stahl and King, 2020). Conversely, Gray et al. (2013) stress the intrinsic link between credibility and dependability, suggesting that a

study demonstrating credibility is likely to exhibit dependability as well. To establish dependability, the researcher should provide a comprehensive procedural account. Gray et al. (2013, p.56) describe this as a "prototype model enabling future researchers to replicate the study and potentially obtain similar outcomes". Additionally, a thorough report aids the researcher in assessing the adherence to sound research practices throughout the study process.

3.8.3. Reflexivity

Creswell (2014, p.234) emphasized that in qualitative research, "researchers should acknowledge how their personal background, culture, and experiences can influence their interpretation, including the themes they develop, and the meaning attributed to data". In this study, the researcher prioritized open and honest self-reflection. Moreover, the researcher ensured that any negative or contradictory information that emerged during the study was openly addressed, regardless of its significance. This approach aimed to comprehensively consider all interview data, presenting a genuine, realistic, and valid portrayal of the information gathered.

3. 9. Ethical consideration

Ethical considerations "encompass the procedures implemented to guide a research project, addressing potential issues arising from the research to fulfil the study's aims and objectives while safeguarding participants' rights" (Chetty, 2016, p.67). Observing ethics is essential in any empirical study. In this study, ethical concerns were carefully balanced to pursue scientific knowledge while respecting the rights of participants (Chetty, 2016). Emphasis was placed on ethical principles such as informed consent, confidentiality, and anonymity to ensure participants' voluntary involvement and protection from harm (Chetty, 2016).

Before data collection, informed consent was obtained from all participants. This process aimed to respect participants' voluntary participation and ensure they were fully informed about the study (see Appendix A). Confidentiality was strictly maintained during analysis, with no identifying information about participants or their affiliations disclosed. Permission to conduct the research was sought from both participants and a gatekeeper letter was received from NCI permitting to interview managers. Ethical guidelines were strictly adhered to throughout the study as this was in line with the ethical clearance (appendix C, Protocol reference number:

HSSREC/00006029/2023) obtained from the institution's Human and Social Sciences Research Ethics Committee.

3.9.1. Informed Consent

The process for obtaining informed consent was strictly followed. Participants were provided with an information letter that detailed the study's objectives, explained its purpose, and emphasized that their participation was voluntary. Before the interviews, participants were given a comprehensive explanation of the study, its aims, and the voluntary nature of their involvement. The informed consent forms were signed (refer to Appendix B for the Official Consent Form), supported by two accompanying documents for verification: the ethical clearance certificate and the information letter (see Appendix D for the EC certificate and Appendix A for the Information Letter).

3.9.2. Confidentiality

Ensuring the confidentiality of participants was a key priority to protect their privacy. The researcher committed to keeping participants' personal information confidential and not sharing it with third parties without their explicit consent. Any data gathered will be used exclusively for academic purposes and securely disposed of once the study is complete. This approach aligns with the ethical clearance requirements of the institution, which emphasize the importance of confidentiality. In summary, all information collected from participants will be handled with strict confidentiality, with personal identifiers such as names, addresses, and contact details removed or anonymized to prevent identification in any research outputs, reports, or publications.

3.9.3. Reducing potential harm to participants

The study was thoughtfully designed to reduce any potential risks to participants. The chosen methods and procedures were considered safe, and participants were made aware of the study's nature and any associated risks. This open communication provided participants the option to withdraw at any time if they felt it necessary, prioritizing their safety and well-being during the research.

3.10. Conclusion

This chapter outlines the research methodology used in this study, adopting an interpretive epistemology and a qualitative research approach. It details the population, sample size, data

collection methods, and the process used to analyze the data. The chapter also addresses how ethical considerations were managed throughout the study. Initially, the study was designed to interview 15 incubatees and 4 managers, but only 3 managers were available for interviews during data collection. The following chapter will present the data analysis, findings, and discussion.

CHAPTER 4: FINDINGS AND DISCUSSIONS

4.1. Introduction

This chapter presents the findings and analysis of the findings obtained from the data collected from the respondents. A total of 19 respondents were invited to participate in this research, with four respondents as support managers who sit in the selection process of the incubatees and a maximum of fifteen respondents were incubatees who are based at the centre. The fifteen respondents answered all questions and the only three managers of the incubator responded were interviewed. The interview schedule had 23 questions with 1 and 2 focusing on the personal details of respondents and 3 – 23 focused on the nature of business and objectives of the study. In a nutshell, this chapter will therefore focus on the following sections: 4.2 Findings and Analysis, 4.3 Discussion of the findings, and 4.4 Conclusion.

4.2. Findings and Analysis

This section presents the findings derived from the conducted interviews; the questions were from 1 to 23 (as per Appendices B). Empirical findings are a comprehensive analysis of the findings from the interviews, which have been structured per the key research objectives. The analysis incorporates pertinent linkages to the existing literature.

4.2.1. Profile of fifteen Respondents

4.2.1.1. Age of the respondents

The analysis of the data obtained, as shown in Figure 4 below, reveals the age group of respondents, showing that 6 (at 40%) were within the age range of 31– 40, and 6 (at 40%) were within the age range of 41 – 50, and then 2 (at 13.33%) were within the range of 51 – 60 and 1 (at 6.67%) was within the range of 61– 70. Business registration is one of the requirements for entry into the incubation program at the National Construction Incubator, thus, particulars including age are part of the registration requirements. This is an excellent starting point for company ownership, and it also gives a demography analysis of the incubatees.

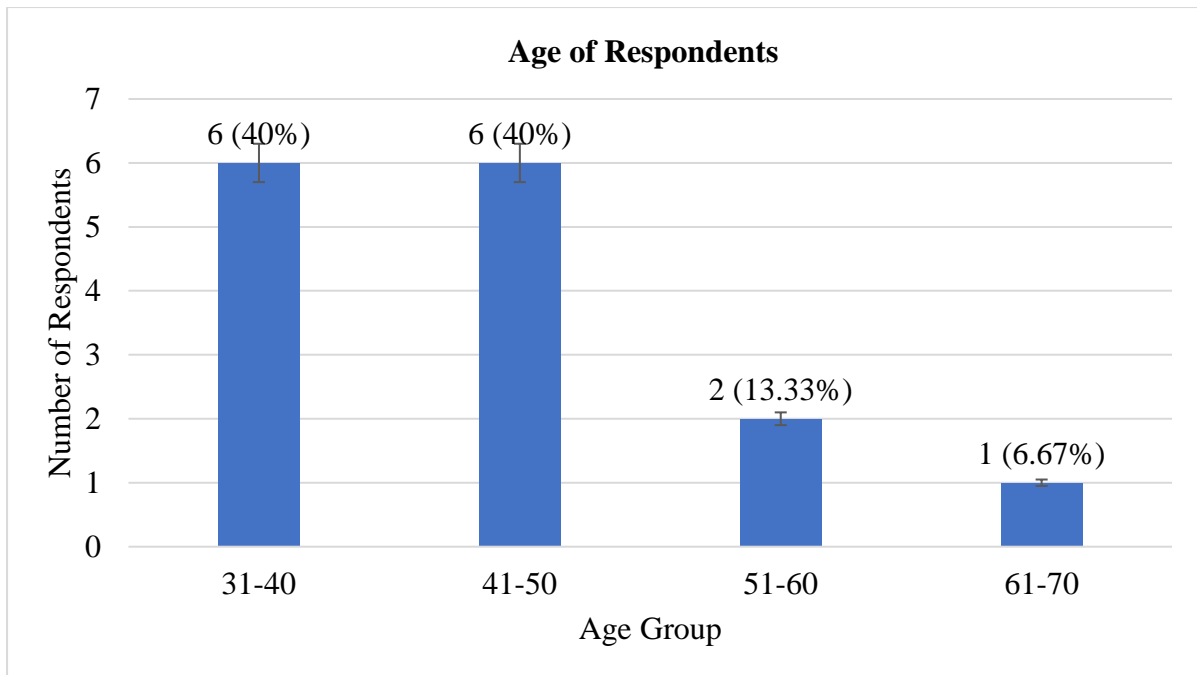


Figure 1: Age of respondents.

4.2.1.2. Gender of the Respondents

The analysis below shows that the incubator has more female incubatees 8 (at 53.33%) than males 7 (at 46.67%) as seen in Figure 5. This shows that females are slightly eager and enthusiastic when it comes to looking for help from the incubator.

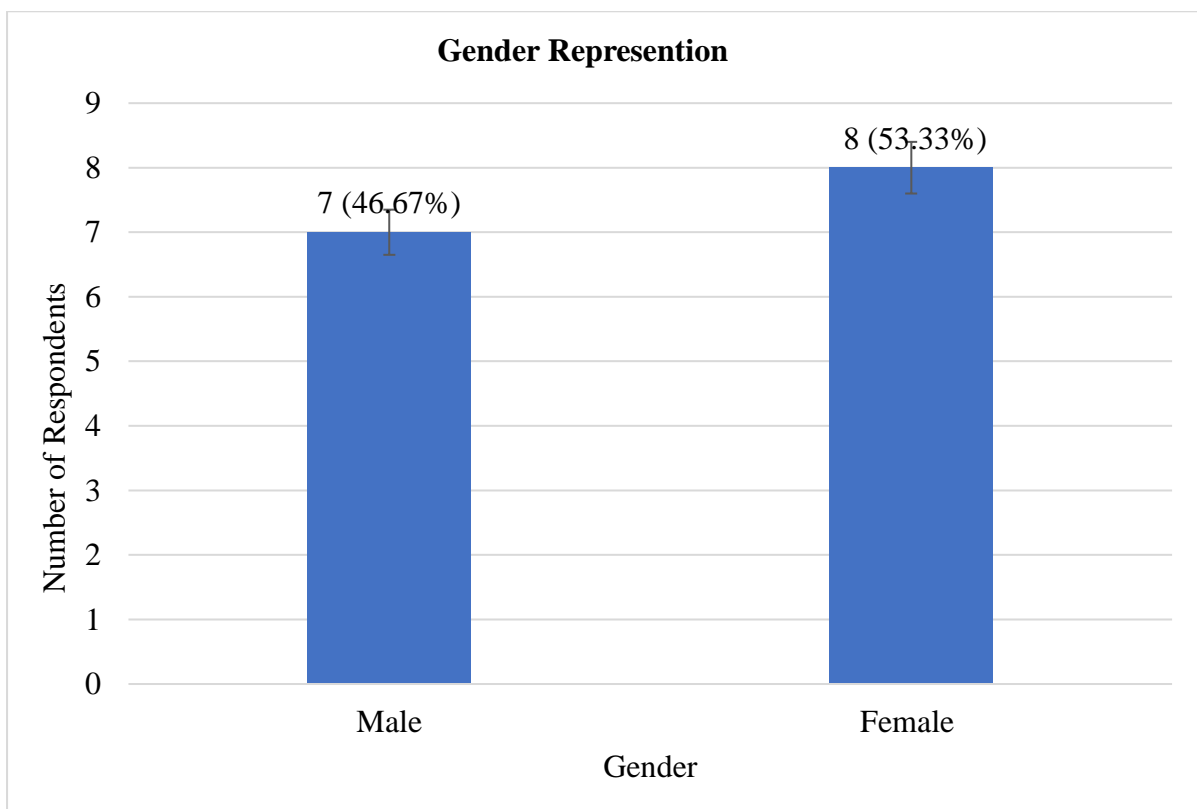


Figure 2: Gender of the respondents.

Statistic South Africa (2019) identified factors influencing women's participation in entrepreneurship, including their work status and socioeconomic background. Gender disparities are notable in the labour market, particularly in high-level positions (Bengtsson et al., 2012). One controversial hypothesis for this gap suggests that women possess innate personality traits that are incompatible with competitive, challenging, and risky work environments. However, Dhliwayo and Radipere (2014) found that gender indeed plays a significant role in business performance. The World Economic Forum's annual report (2023) highlights that the South African labour market remains characterized by racial and gender disparities, with certain population groups and genders having more access to opportunities at higher occupational levels.

4.2.1.3. Nature of your business

The respondents were asked about the nature of their business, even though they all fall under the construction sector. The graphical representation in Table 2 depicts the quantification of the representation of industry within the incubator. The industry that garnered the highest coverage was Construction with 9 (at 60%), Subsequently, the Construction & IT industry attracted the participation of 2 (at 13.33%), while the Construction, Business, & Event Planning, Construction, & Consulting, Construction & Catering, and Construction & Aluminium Products all had 1 at (6.67%) each represented.

Table 2: Nature of business the respondents are conducting

What is the nature of the business within which your business falls?		
Parameter	Frequency	Percentages
Construction	9	60%
Construction & IT industry	2	13.33%
Construction, Business, & Event Planning	1	6.67%
Construction, & Consulting	1	6.67%
Construction & Catering	1	6.67%
Construction & Aluminium Products	1	6.67%

4.2.1.4. Business established and for how many years has it been in operation

Table 3 presents data about years of establishment and operation to get an overview of the life span of these businesses. 9 (at 60%) businesses were established in the last 5 years, 5 (33.33%) were established between 6-10 years ago and only 1 (at 6.67%) was established in 2007. Even though the companies were registered in the past 10 years, no companies have operated for more than 10 years. The reason for operating a company may be due to financial and regulation challenges that incubatees find themselves with and do not have solutions for.

Table 3: Years the business was registered and its operational years.

Years based in establishment business		
Years registered	Number of business	Percent
1-5 years	9	60%
6-10	5	33.33%
11-15	1	6.67%

From the graph above, 2 companies were registered in 2003, however, both have 1 year operation year, and 4 were registered in 2022, and 2 years of operating. This is a great concern to the economy as many companies are registered but not operating. Nevertheless, incubators are created to assist with such challenges, and thus help improve the operations of incubatees.

4.1.2.5. Reason the respondent joined the NCI incubator

The respondents were asked about the rationale behind their applying and joining NCI. Each respondent answered the question according to their knowledge, belief, and experience in business. From 15 respondents in Figure 5, the most common answer was that they joined the NCI incubator to expose their business for growth at 11 (at 73.34%), 2 respondents mentioned that they applied to join the NCI incubator to receive training and mentorship (at 13.33 % and 2 (at 13.33%) replied that they applied get support from the incubator so that my business will grow.

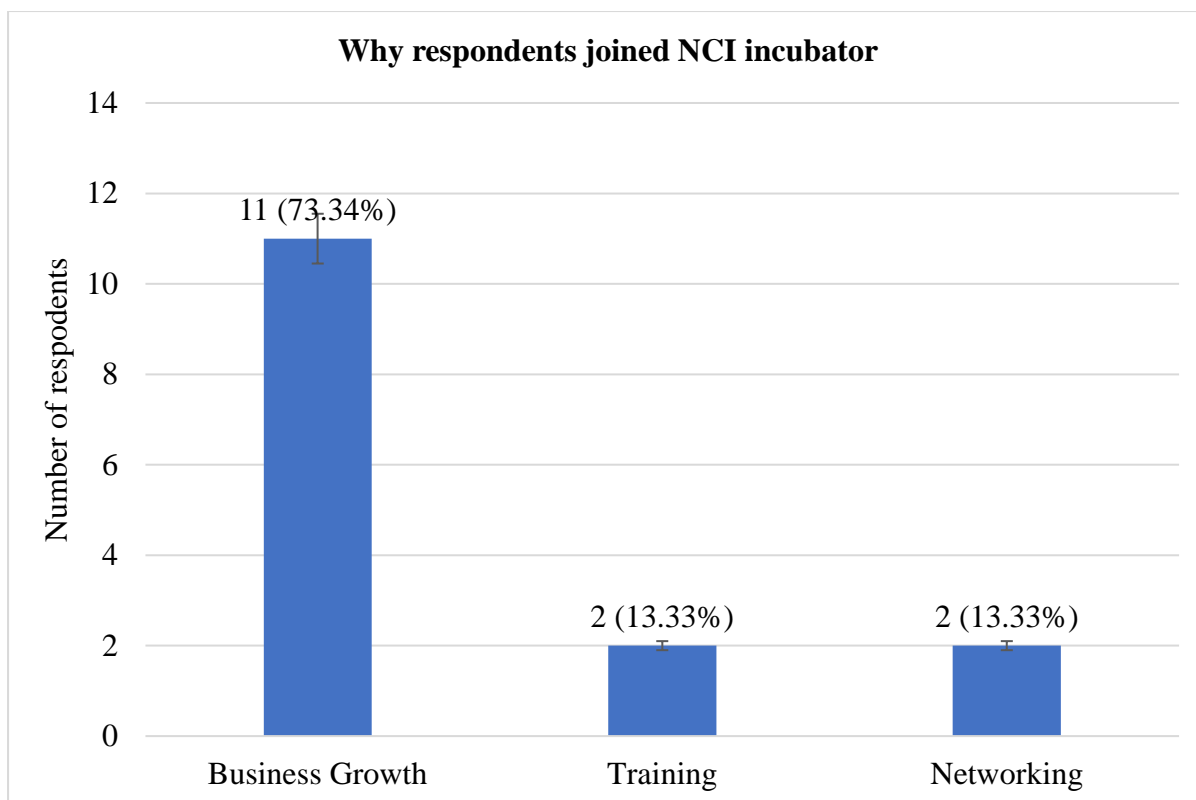


Figure 3: Reason respondents joined the NCI incubator.

According to the NCI (2018) report, various stakeholders play distinct roles within the ecosystem. Funders contribute financial support to incubatees, while support platforms offer workspace, networking opportunities, coaching, and training facilities. Significant investments are allocated to physical infrastructure and in-person training sessions. As a result, numerous entrepreneurs apply and aspire to become part of NCI's business network.

4.1.2.6. The process followed by incubatees to be part of NCI

The question was asked to all the respondents on the process they followed to be part of NCI. All respondents said they applied to be in the incubator. They saw an advert in the newspaper and Internet, and they sent the application. After that, it was an assessment or interview, and successful candidates were called and informed that they were part of the NCI incubator. Some selected participant's responses to the question include the following. Most respondents showed that they knew the process leading to the selection of the businesses to be admitted by NCI. The respondents shared various experiences regarding how they became part of the NCI incubator. Most respondents applied through an official process, which typically included submitting forms or responding to advertisements, followed by different selection procedures such as interviews, skills audits, and business assessments. Some respondents specifically

mentioned going through a skills audit or selection process involving assessments and interviews before being accepted into the incubator. A few respondents noted less formal processes, with one stating no process was followed and another mentioning selection by a ward councillor before applying. Overall, the selection process appeared to vary, but interviews and assessments were common.

4.1.2.7. Entrepreneurial background

The respondents were asked if they had any entrepreneurial background. The analysis as per Figure 6 below shows that 8 (at 53.33%) do not have an entrepreneurial background while 7 (at 46.67%) replied that they have an entrepreneurial background. This has been proven by the number of companies being registered but not operating. Another reason can be that most respondents are in their youth age and don't have the necessary experience in the entrepreneurial background.

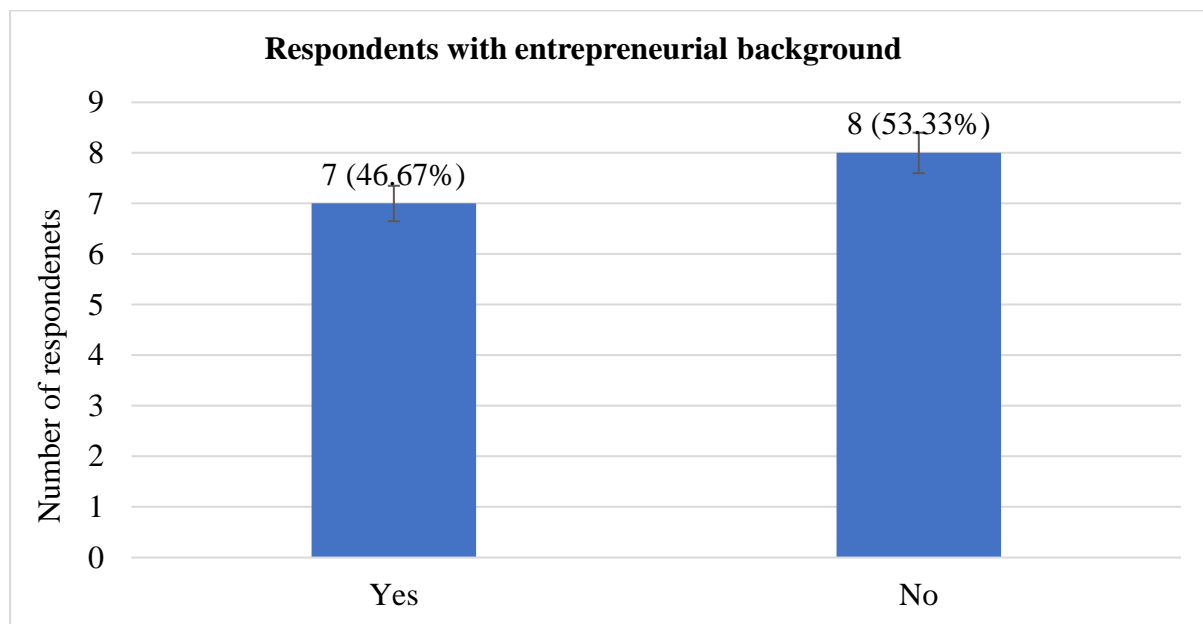


Figure 4: Number of respondents with entrepreneurial backgrounds.

4.1.2.8. The services the respondents are receiving from NCI

The respondents were asked about the services they are receiving from the incubator. Table 5 below shows the service each respondent is receiving at the business incubator. This finding is in line with the respondents and the purpose of the NCI incubator of rendering services to the incubates. This is also with the objective of whether the incubate selection process affects the performance of the incubator. Most respondents said they are receiving business training,

business support, infrastructure, and tax information in the NCI incubator. There are other responses such as receiving office space, printing, internet, training, and compliance assistance.

Table 4: Service respondents are receiving at the business incubator.

Services the respondents are receiving from NCI		
Parameters	Frequency	Percentages
Business Support	6	40%
Business Management Training	13	86.67%
Mentorship	1	6.67%
Infrastructure	1	6.67%
Business Compliance	5	33.33%

4.1.2.9. Challenges faced by respondents in running their businesses

The respondents were asked about the specific challenges their businesses are faced with on their daily operations. In Table 6 below, respondents mentioned some of the challenges they face running a construction business. The common challenge is getting new projects 15 (at 100%) and lack of funding in the business 9 (at 60%). There were 2 (at 13.33%) who mentioned that lack of markets and 2 (at 13.33%) who said lack of support has been a challenge. According to a survey by FinMark Trust in 2010, “87% of small formal sector firms had never accessed credit”, and the Global Entrepreneurship Monitor (GEM) survey in 2018 highlighted those financial difficulties caused 28% of entrepreneurs to shut down their businesses in 2017. With NCI incubatees there is no difference, finances are a challenge.

Table 5: Challenges the respondents face in running their business.

Type of challenges do you face in running your business		
Parameters	Frequency	Percentages
Getting New Projects	15	100%
Lack of funding	9	60%
Lack of new Markets	2	13.33%
Lack of Support	2	13.33%

4.1.2.10. Amount of time the incubatee has spent since joining NCI

The respondents were asked a question about the duration they had been under the guidance of NCI. Table 7 presents data about how long the businesses have been in NCI business. All businesses have been within 5 years or less within the NCI business. Within those years, 8 (at 53.33%) businesses have less than 12 months within the NCI business, with 6 (at 40%) being the NCI business for 2-3 years and 1 (at 6.67%) being 4-5 years in the NCI incubator.

Table 6: Incubation duration of the businesses at the NCI.

How long the business has been in the NCI incubator		
Years	Frequency	Percentage
0-1	8	53.33%
2-3	6	40%
4-5	1	6.67%

4.1.2.11. Impact of NCI on the operational outlook of the incubatees

The respondents were asked about the impact NCI has had in their businesses since forming part of it. The impact of the NCI incubator on the operational outlook of the incubatees varied across respondents. Several reported positive changes, such as gaining new business knowledge, improving business management skills, and enhancing compliance. Networking opportunities and exposure to different sectors were also highlighted as benefits. However, a significant number of respondents indicated that their business operations had not changed or were only minimally affected, with some businesses still not fully operational. Overall, while some incubatees experienced growth and development in their business practices, others noted limited or no noticeable changes since joining the incubator.

4.1.2.12. An additional number of employees since incubatee joined NCI

The respondents were asked about the additional numbers Figure 7 represents new additional employees employed the business in the NCI business. The data indicates that 9 (at 60%) have not employed new employees, while 4 (at 26.67%) incubatees have employed 1 each, and 2 (at 13.33%) have employed 2 new employees.

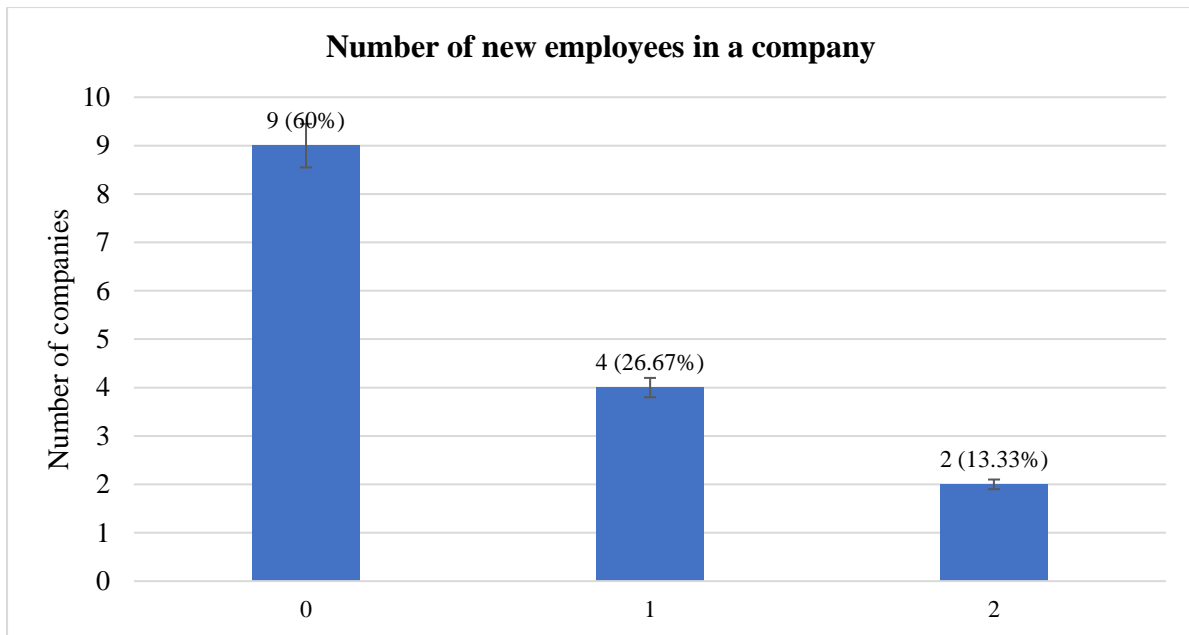


Figure 5: Number of new employees in the company.

4.1.2.13. Provision of a conducive learning environment by NCI

The respondents were asked about the conduciveness of the learning environment provided by NCI. Figure 8 below presents the respondents' views about NCI if it provides a conducive learning environment. 15 (at 100%) respondents agreed that the NCI offers a conducive learning environment

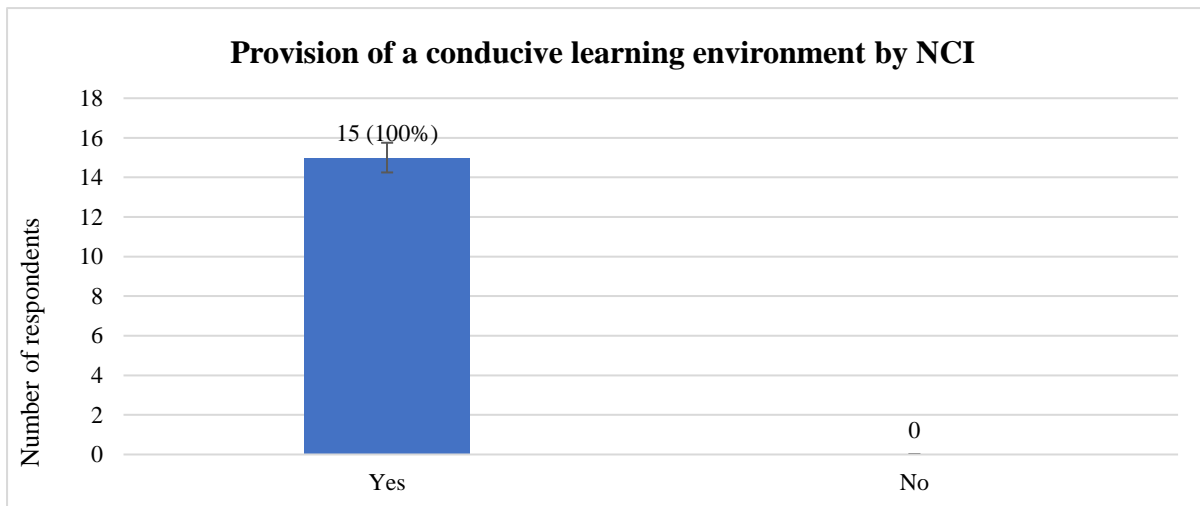


Figure 6: Views of respondents about the conduciveness of NCI learning environment.

4.1.2.14. Fairness and transparency of NCI selection criteria

The respondents were asked about the fairness and transparency of the selection criteria used by NCI. Figure 9 shows that 14 (at 93.33%) respondents think that the NCI criteria were fair

and transparent while 1 (at 6.67 %) think the process was not fair, as there many questions on how businesses were selected.

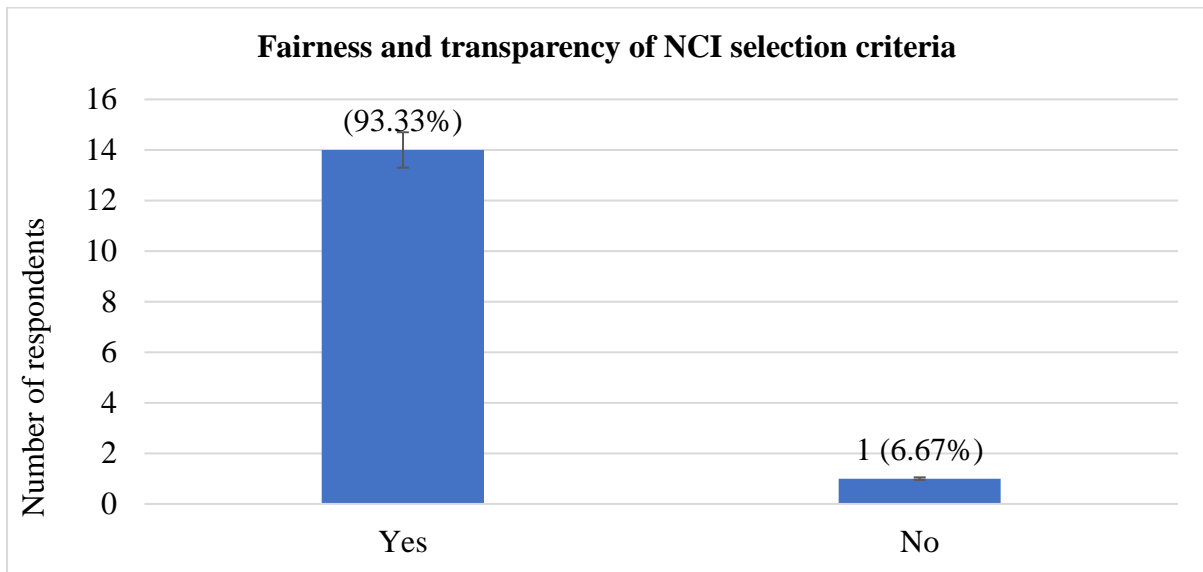


Figure 7: Respondent’s views of the NCI selection criteria.

4.1.2.15. Contribution of the selection criteria to the success of the incubatees

The respondents were asked about the impact the selection criteria have had on the progress and success. According to the respondents, 14 (93.33%) agree that the selection criteria have contributed to the success of the incubatees while 1 (6.67%) does not agree as shown in Figure 10. 6.67% of respondents say that people are already complaining about the selection criteria, which means it is not successful and raises questions.

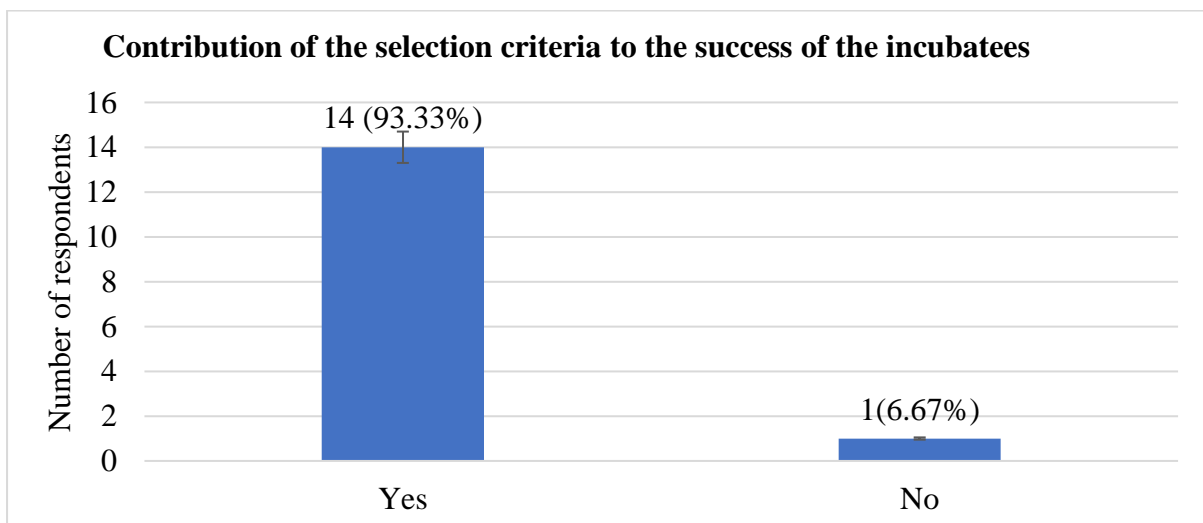


Figure 8: Views of respondents about selection criteria

4.1.2.16. Recommendations to improve the selection criteria of NCI

The respondents were asked about the possible recommendations to improve selection criteria of NCI. According to the respondents, there is no recommendation to improve the selection criteria of NCI as seen in Table 9. The respondents responded by saying that the selection criteria were fair.

Table 7: Selection criteria recommendations by incubatees to NCI

Do you have any recommendations to improve the section criteria of NCI?		
Parameters	Respondents	Percentage
Yes	0	0%
No	15	100%

4.1.2.17. Usefulness of trainings provided by NCI to incubatees

The respondents were asked about the usefulness of the trainings provided by NCI in the quest to develop their businesses. Table 10 shows that 1 (6.67%) does not agree that all the training is useful and necessary while 14 (93.33%) agree that they are necessary and useful.

Table 8: Usefulness of the interventions received by incubatees from NCI

Are business trainings provided by the business incubator to prepare incubatees for the market necessary and useful?		
Parameters	Respondents	Percentages
Yes	14	93.33%
No	1	6.67%

4.1.2.18. Feedback channels and mechanisms in place for incubatees to NCI

The respondents were asked about the feedback mechanisms NCI has in place for incubatees and whether they are aware of such channels. The feedback mechanisms in place for incubatees at NCI appear to be largely unknown or ineffective, according to most respondents. Many incubatees reported that they were not aware of any formal channels for providing feedback on the incubator's services. A few respondents highlighted the absence of feedback opportunities, describing the situation as poor or lacking. Only one respondent expressed that the feedback mechanisms were good so far, while others emphasized the need for such channels to improve the incubator's services. Overall, there seems to be a lack of established or accessible feedback mechanisms for incubatees at NCI.

4.1.2.19. Post-incubation growth and sustainability of incubatees

The respondents were asked about post-incubation sustainability. Figure 11 shows the respondent's response if they think that after exiting NCI their business will be sustainable and grow. 14 (93.33%) of the respondent believe their business will be sustainable while 1 (6.67%) is not sure. According to Mail and Guardian (2022, p.8), "start-ups fail at a rate of about nine in 10 in the first two years of operation. Within the 27 Seda (Small Enterprise Development Agency) incubators (in operation), the survival rates are in the region of 84% to 97% in the first two years of operation. Post-graduation from the incubators, the numbers come down, but they are still more than 70%". The study found that most of the businesses are confident of the success post-incubation, this to a certain extent indicates the positive impact the incubator has had in their businesses.

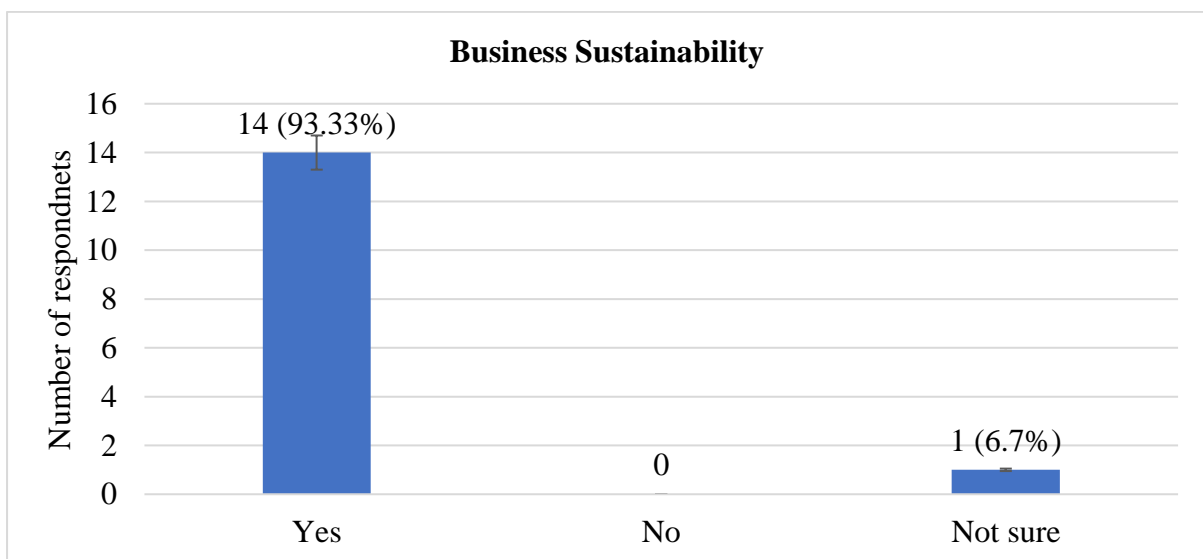


Figure 9: Likelihood of business sustainability post-incubation

4.1.2.20. Additional services incubatees require from NCI

The respondents were asked about additional services they require more than what NCI is currently offering. Respondents provided various suggestions for additional services that could enhance the assistance they receive from NCI. Some incubatees expressed that no further services were needed at this time, while others recommended specific areas for improvement. Suggestions included project management training, access to funding training, and stable or uncapped Wi-Fi. There were also requests for partnerships with local municipalities to secure business opportunities, particularly in construction projects, as well as assistance with market access and potential sub-contracting work in the local area. One respondent highlighted the importance of NCI proactively checking with incubatees about their training needs.

4.1.2.21. Impact of selection criteria on the performance of the incubator

The respondents were asked their general views about the impact the selection criteria have on NCI. Figure 12 shows that 13 (86.67%) respondents do agree the selection criteria have an impact on the performance of the incubator while 2 (13.33%) think otherwise. These findings resonate with the literature in that selection criteria have an enormous impact on the performance of the incubator.

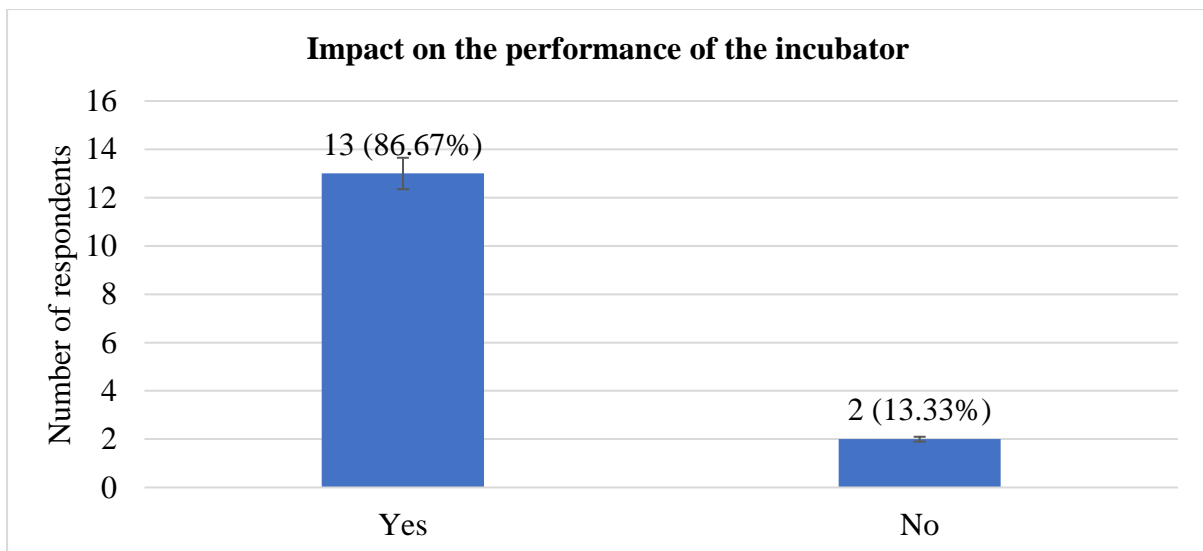


Figure 10: Impact of selection criteria on NCI performance

4.1.2.22. Selection criteria of NCI areas of improvement

The respondents were asked if the selection criteria NCI is currently using needs any improvement. Based on the respondents' answers, they believe that there is no need to improve the selection criteria because the same criteria favored them to be in the NCI business.

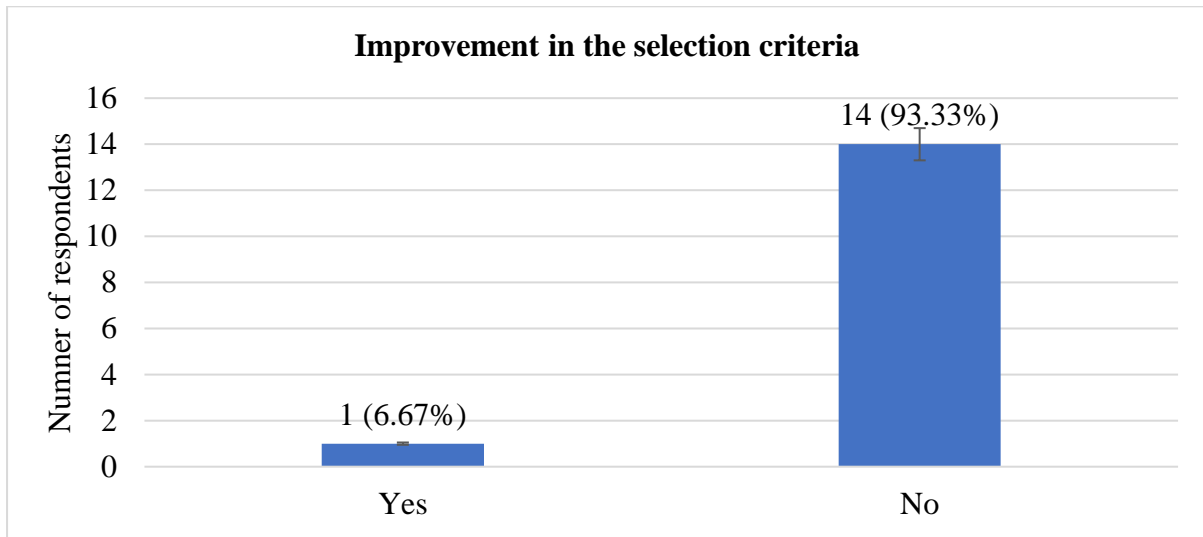


Figure 11: Need for improvement of NCI selection criteria

4.1.2.23. Value of development programs offered by NCI to incubatees

The respondents were asked about the value of the development programs offered by NCI. The figure shows that 15 (100 %) respondents agree that they all need this program to uplift their business and agree that it will also be helpful in the future.

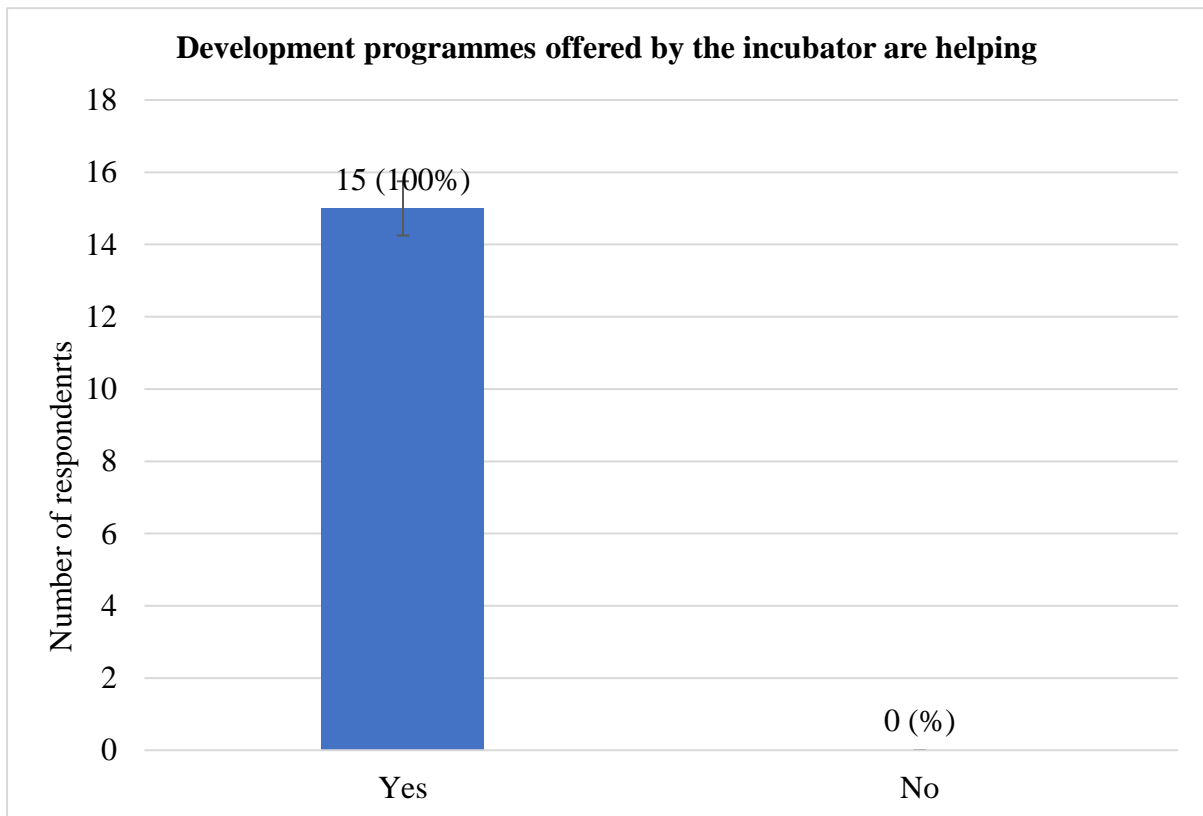


Figure 12: Value of the programs offered by NCI

4.2.2. Profile of three respondents as support managers

Of the four managers originally approached, three participated and provided responses.

4.2.2.1. Primary purpose of NCI and the reason for its establishment

The managers were individually asked about their understanding of the primary purpose of NCI and the reason for its establishment. The managers shared a consistent understanding of the primary purpose of NCI's establishment, which centers on supporting SMMEs, particularly black-owned businesses, in the construction sector. Manager 1 emphasized the focus on uplifting businesses by providing business management and technical skills, as well as offering mentorship to prevent potential failures. Manager 2 outlined NCI's role in providing both technical support and business management assistance, including mentorship from engineers for site visits, costing, and pricing, along with business advisory services for planning, compliance, and administrative tasks. Manager 3 highlighted NCI's goal to support SMMEs in managing their businesses and addressing technical challenges, while also focusing on upskilling contractors and reducing the failure rate of construction projects. The responses of the managers largely showed that they understood the primary purpose of the incubator.

4.2.2.2. Change of NCI vision over the years of its existence

The managers all agreed that the vision of NCI has remained consistent since its establishment. Manager 1 stated that while the overall vision has not changed, the yearly objectives are adjusted based on the targets set by the incubator's funders. Similarly, Manager 2 noted that the vision has stayed the same over the years, and Manager 3 confirmed that, while the vision remains unchanged, the strategic objectives have evolved annually to meet the incubator's changing needs.

4.2.2.3. Selection criteria process of NCI

The three managers were asked about their understanding of NCI selection criteria and the process being followed. The selection process at NCI follows a structured approach, with managers outlining several steps for recruiting and selecting suitable SMMEs. Manager 1 described the process as involving advertisements in local newspapers and the use of a walk-in database. Applications are sifted through, followed by an assessment of selected SMMEs, which includes a gap analysis and skills audit, leading to a decision on the most suitable

candidates for the program. Manager 2 emphasized a two-part recruitment process, which includes advertisements every three years, submission of application forms with supporting documents, and elimination based on set requirements such as company registration and CIDB. Interviews, aided by technical mentors and business advisors, are conducted to perform a gap analysis. Manager 3 also described an advertisement-driven process, initiated when incubatees graduate and spaces become available. The application forms are prioritized for walk-ins, and a selection process follows, incorporating skills audits or gap analyses to identify companies with growth potential.

4.2.2.4. Selection criteria change of NCI since its establishment

The managers were asked about the selection criteria change over the years since the establishment of NCI. Since the establishment of NCI, the selection criteria have largely remained the same, with some notable changes in recent years. Manager 1 indicated that the only significant change has been the increased focus on targeting youth and women-owned businesses, which was not initially a priority. Similarly, Manager 3 noted that while the core selection criteria have stayed consistent, there has been a shift towards prioritizing youth and women-led businesses, resulting in a notable increase in the number of such businesses in recent years. However, Manager 2 confirmed that the selection criteria itself has not undergone any changes over the years.

4.2.2.5. Contribution of the change in the selection criteria of NCI

The change in selection criteria, particularly the prioritization of youth and women-owned businesses, has had a positive impact on the performance of NCI. Manager 1 observed that this focus has significantly improved the incubator's overall performance. Manager 3 also highlighted the substantial contribution of youth and women-led businesses, noting their positive influence. However, Manager 2 stated that the change in selection criteria has not had any noticeable impact.

4.2.2.6. Occupancy rate per annum in the incubator over the years of its existence

The managers were asked about the occupancy rate of the incubator over the years of its existence. NCI has maintained a high occupancy rate, with Manager 1 estimating it at around 90% over the past eight years, noting that the remaining 10% of businesses typically exit the program before graduation. Manager 2 indicated that the occupancy rate is influenced by the funders, with a maximum of 30 businesses per three-year cycle. Manager 3 reported a slightly higher occupancy rate of approximately 95%, acknowledging that some businesses leave before completing the full program, which typically lasts for three years, followed by a two-year post-incubation period.

4.2.2.7. Number of incubatees who graduated from NCI since its inception

The managers were asked about the number of incubatees graduating since the establishment of NCI. Since its inception, NCI has seen a significant number of businesses graduate from its program. Manager 1 reported that approximately 130 businesses have graduated since 2016, while Manager 2 mentioned that 45 incubatees have graduated between 2019 and the present. Manager 3 confirmed that a total of 130 incubatees graduated from 2013 to 2023, providing a consistent record of successful graduates over the years.

4.2.2.8. Estimated number of incubatees who have shown sustainable growth over some time.

Most NCI's graduates have shown sustainable growth since completing the program. Manager 1 highlighted that, despite a slowdown in construction projects in KwaZulu-Natal, all graduated businesses have experienced significant growth in terms of turnover and job creation. Manager 2 reported that approximately 35 out of 45 graduates over the past five years have demonstrated growth. Manager 3 noted that 95% of the businesses that have graduated showed significant growth, with some even taking on mentoring roles for newer incubatees, further indicating their ongoing success and development.

4.2.2.9. Support offered by NCI to incubatees

The managers were asked about the services offered by NCI to incubatees. The responses showed that NCI offers a range of services to support the growth and development of incubatees. These include various forms of training for both entrepreneurs and their staff, business and technical support, and assistance with compliance. Incubatees also benefit from office space, internet access, and printing facilities. NCI provides industry-specific support, such as from bodies like the CIDB and Labour, as well as mentorship in business development and technical aspects. Additional services include access to finance, tender document assistance, and site support for projects, ensuring a comprehensive support system for businesses within the incubator.

4.2.2.10. Association between NCI contribution and incubatee success

The managers were asked about the association between NCI's contribution and incubatee success. The contribution of NCI to the success of its incubatees has been significant, with managers noting the positive impact on performance both during and after incubation. One manager highlighted the substantial role the incubator has played in driving incubatee success, while another emphasized the feedback from incubatees, which indicates that NCI's support has had a major influence on their businesses. However, a limitation mentioned is the availability of resources, which may affect the extent of support that can be provided. Overall, the association between NCI's contributions and incubatee success appears to be strong.

4.2.2.11. Mechanism NCI uses to measure its performance

The managers were asked about the mechanism NCI has in place to measure its performance. The responses showed that NCI measures its performance using a variety of mechanisms. These include Key Performance Indicators (KPIs) that are used to gauge progress towards set goals. Additionally, the incubator utilizes the Growth Wheel Tool to identify gaps, followed by informal interviews and one-on-one sessions to assess improvements. Feedback from incubatees also plays a role in performance evaluation. Moreover, NCI works with external stakeholders like SEDA and eThekweni Municipality, which provide target templates to further measure the incubator's success. The incubator also sets its targets on a monthly and quarterly basis to ensure alignment with its objectives.

4.2.2.12. Methods used by NCI to obtain feedback from stakeholders

The managers were asked about the methods NCI uses to gather feedback from its stakeholders. NCI employs several methods to obtain feedback from stakeholders according to the managers. These include the use of evaluation forms and quarterly one-on-one interviews with incubatees. In addition, surveys are conducted every quarter to gather insights. Mid-term assessments, which take the form of interviews, are also used to gather feedback from both incubatees and other relevant stakeholders. Furthermore, the incubator evaluates its programmes to assess their effectiveness and impact. The feedback is critical for strategic planning purposes and the improvement of the incubator.

4.2.2.13. General reasons for early exit by the incubatees

The early exit of incubatees from NCI is generally attributed to unmet expectations. Some incubatees leave because they feel the incubator is not meeting their needs, particularly regarding stipends, which were not part of the initial agreement. Others exit due to dissatisfaction with the relevance of the training provided, feeling it does not align with their business needs. Overall, a common reason for early departure is the realization that the services offered by the incubator are not adequately supporting the growth of their businesses

4.2.2.14. Post-incubation programme for NCI

The managers were asked whether NCI have a post-incubation program in place to ensure that incubatees remain and attain sustainable growth. The responses from the managers indicate that support continues beyond the typical incubation period. Manager 1 confirmed that the support extends for an additional two years following the standard three-year incubation period. Manager 2 similarly affirmed that the same level of support is maintained, including access to both technical and business development mentors. Manager 3 also agreed, stating that support is provided for two years after the incubatee has officially graduated from the program.

4.2.2.15. Critical challenges faced by NCI

The managers were asked about critical challenges that they believe NCI is currently faced with and has a potential to hinder the effective implementation of the program. The managers highlighted several challenges related to resource limitations within the incubator programs. Manager 1 pointed out the availability of funding for programs but noted the limited resources for Small, Medium, and Micro Enterprises (SMMEs) at the centers. Manager 2 mentioned resource constraints as well, along with concerns about theft and the overall safety of the facilities. Similarly, Manager 3 emphasized the limited resources available to the incubator, which may hinder its ability to fully support the incubatees.

4.3. Discussion of the findings

The findings of the study largely resonate with the narrative purported by many scholars, and these are captured in the literature review chapter. The selection criteria for incubatees are typically designed to ensure that the businesses being incubated are aligned with the goals of the incubator and have the potential for growth and success. The findings of the data collected from both the managers of NCI and incubatees point to an understanding that businesses are selected based on a combination of factors such as the nature of the business, ownership, financial viability, managerial capacity, and the ability to scale.

The views of scholars such as Ssekiziyivu and Banyenzaki (2021) and Njau (2022) resonate with the findings of this report in that an incubator must take into serious cognizance several factors in their selection process to ensure that the right candidates are ultimately selected. This, according to these scholars has a huge bearing on the performance of not only the incubator but the incubatees as well, since they are selected in line with the strategic objectives of the incubator.

The responses to whether incubatees are aware of the selection criteria and whether they find them fair and transparent are crucial for evaluating the clarity and accessibility of the process. Annexure E depicts an example that NCI uses as a selection criterion in its processes. The data collected and analyzed confirms that most incubatees understand the criteria and view them as fair, it suggests that the incubator has effectively communicated its process and selection criteria. The incubatees believe the selection criteria have resulted in a good match between their business and the incubator's resources, and this suggests that the selection criteria are effectively identifying the most promising candidates.

Wachira *et al.*, (2017), in this regard, highlight the importance of transparency in the selection process of the incubatees and further argue that if the prospective incubatees perceive and understand the process, this has the potential to attract the right candidates for the incubator. The managers also agreed that the selection process and criteria positively impacted the performance of both the incubator and its incubatees. By refining the selection process, the incubator has, over the years, been able to identify businesses that were more likely to succeed, which in turn would have led to improved graduation rates and more sustainable business outcomes. The shift to more stringent criteria has helped the incubator focus resources more effectively on the most promising incubatees.

According to Njau (2022), it is of paramount importance that an incubator has a simple-to-understand selection process and criteria, and this is a result of constant refining and improvements in line with the ever-changing business landscape in which incubators operate.

The managers have been notably keeping track of the performance of the incubator in the context of the type of entrepreneurs selected for NCI programs. To this end, the managers highlighted that the performance of both the incubator and its incubatees is monitored. The metrics the incubator uses include amongst others financial metrics (e.g., turnover, profitability), non-financial indicators (e.g., job creation, community impact), and business development progress (e.g., scalability, innovation). Furthermore, the incubator uses annual reviews, progress reports, and performance benchmarking as tools to monitor performance.

Additionally, qualitative feedback from incubatees is integrated into performance assessments. All these mechanisms assist the incubator to determine the impact that its selection criteria have on the performance. Scholars such as Cassim (2001) and Mokgoko (2015), argue strongly that the incubator must have metrics in place to constantly measure the performance of the organization and incubatees and this is in line with the sentiments of the managers. Furthermore, according to Mokgoko (2015), it is important that managers employed by the incubators are well-versed and competent enough to carry out the performance metrics to ensure valuable findings and that they can be used to improve the incubator.

Based on the questions both managers and incubatees responded to, the findings of the study show that the evolving selection criteria of the National Construction Incubator have had a significant impact on the incubator's performance and the sustained growth of its incubatees. By refining the criteria, focusing on businesses with higher growth potential, and providing targeted support, the NCI has contributed to a positive impact in the construction sector. However, challenges remain, such as ensuring that businesses are adequately prepared for the transition post-incubation and that support mechanisms are continuously updated to meet the changing needs of the industry.

4.4. Conclusion

This chapter presented the analysis of the data collected to explore the association between selection criteria and the performance of a business incubator which is NCI, as well as to ascertain whether the incubatee selection process has a direct impact on the incubator's performance. The findings provide significant insights into how the selection of incubatees, and the criteria used during this process can influence various performance outcomes of the incubator, such as the success rate of incubated businesses, resource optimization, and the incubator's overall sustainability.

The first objective of the study, which was to explore the association between selection criteria and incubator performance, revealed that certain selection criteria, particularly those focused on the scalability of business ideas, team composition, and market readiness, are strongly correlated with better performance outcomes. Incubators that employed a comprehensive, rigorous, and tailored selection process were more likely to support startups that succeeded in their post-incubation stages. This suggests that a well-defined selection framework is crucial for ensuring that businesses with high growth potential are chosen, which in turn positively affects the incubator's reputation, funding sustainability, and long-term viability.

The second objective, which aimed to explore whether the incubatee selection process has an impact on the performance of the incubator, found that the process indeed has a significant influence on the overall performance of the incubator. Incubators that were more selective and had a strategic approach to choosing their incubatees tended to experience higher levels of success, both in terms of the individual performance of the incubated businesses and the overall effectiveness of the incubator's programmes.

The findings indicate that careful selection not only ensures better outcomes for the startups but also optimizes the incubator's resources, leading to more efficient use of funding, mentorship, and network opportunities. Furthermore, this study highlighted that the success of the incubatee selection process is not solely dependent on the criteria applied but also on the expertise of the selection panel, the alignment of the incubator's goals with those of the selected businesses, and the support system offered during the incubation process. The impact of these factors on incubator performance underscores the complexity of the incubation environment and the need for a nuanced, dynamic approach to both selection and support.

In conclusion, the findings confirm that the incubatee selection process plays a pivotal role in the performance of business incubators. The research underscores the importance of employing a strategic, well-structured selection process that aligns with both the incubator's capabilities and the businesses' growth potential. Future research could further explore how these selection criteria and processes evolve in different incubator types and across various industry sectors, offering deeper insights into optimizing business incubation models for enhanced success and sustainability.

The upcoming chapter will summarize the study's conclusions and recommendations based on the findings discussed. It aims to synthesize these findings by incorporating insights from the participants about the topic explored, and to suggest practical recommendations.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This chapter concludes the study, by providing thorough and practical recommendations. The research aims to explore the National Construction Incubator's selection criteria and the selection process and their role on its performance. The reader will grasp the study's findings and their possible implications for the selection criteria used by the National Construction Incubator and the role this criterion has on its overall performance.

In a nutshell, this research has endeavoured to understand the criteria used for selecting incubatees and their subsequent role on the National Construction Incubator's performance. The research sought to include extensively the literature review by exploring the origins of business incubators and their evolution within South Africa. It also investigates how the criteria used to select incubatees influence the overall performance of these incubators. The research objectives were refined through a thorough review of existing literature, which provided the theoretical foundation and guided the qualitative research methodology employed. Thus, this section begins by reiterating the research objectives, followed by concluding remarks and recommendations.

The research has two main objectives which are as follows:

1. To explore the role of the incubatee selection criteria on the National Construction Incubator's performance.
2. To explore the role of the incubatee selection process on the performance of the business incubator.

The primary methodology used in this study was a qualitative approach, specifically centred around conducting in-depth interviews with 3 NCI business support managers and 15 incubatees. The findings of this study related to each objective are discussed below.

5.2. Summary of findings

5.2.1.1. To explore the role of the incubatee selection criteria on the National Construction Incubator's performance.

The study has largely shown that the relationship between selection criteria and business incubator performance is pivotal for fostering successful business startup growth. Effective selection criteria, which typically include factors such as innovativeness, market potential,

management team experience, business model viability, and financial readiness, directly influence the quality of ventures accepted into incubators (Lose and Tengeh, 2015). By prioritizing these elements, incubators can enhance their success rates, optimize resource allocation, and facilitate stronger networking opportunities (Lose and Tengeh, 2015).

The engagements with both the incubatees and managers of NCI significantly showed that the association between the selection criteria and the performance of the incubator exists and expresses itself in a variety of ways and these may include.

1. A transparent and systematic admission process is associated with better incubator outcomes. NCI has clear, objective criteria for selecting prospective incubatees and can track performance more effectively, leading to better resource allocation and decision-making. This then translates to a high performance of the incubator.
2. NCI's management believes it can track performance metrics rigorously and, therefore, is able and more likely to refine the selection criteria, improving performance in future prospective incubatees. This continuous improvement, according to the managers, has ensured that NCI performance is greatly enhanced.
3. NCI has ensured integrated supportive resources (e.g., mentoring, financial advice, access to investors) into their selection criteria and this has seen better post-incubation success. Incubatees that were admitted into NCI based on the alignment of their needs with the resources available at the NCI performed better in the long term.

Consequently, incubators that implement rigorous and strategic selection processes not only improve their performance metrics but also contribute significantly to the entrepreneurial ecosystem by nurturing high-potential startups (Lose and Tengeh, 2015). According to the managers interviewed, this strategic approach has significantly worked for NCI and, therefore, impacted the performance of the incubator. The participants, both the incubatees and managers of the incubator have also shown that there is an association between these two elements and are therefore critical in the success and performance of the incubator. The selection criteria employed by business incubators have a profound impact on their overall performance and effectiveness in nurturing startups (Mokgoko, 2015). By utilizing rigorous and well-defined processes - such as innovation potential, market viability, and the strength of the founding team - incubators can enhance their ability to identify high-potential ventures (Mokgoko, 2015). This

strategic approach not only improves the success rates of the incubated businesses but also optimizes resource allocation and mentorship efforts (Mokgoko, 2015).

5.1.2. 2. To explore the role of the incubatee selection process on the performance of the business incubator.

The incubatee selection process is one of the foundational elements of any business incubation programme and this dissertation has endeavoured to bring that to the fore. This process involves a series of steps designed to identify startups that are most likely to benefit from the incubator's support and, in turn, contribute to the incubator's goals (Ssekiziyivu and Banyenzaki, 2021). The selection process typically includes criteria such as (Ssekiziyivu and Banyenzaki, 2021):

1. Business Idea and Innovation: The uniqueness and market potential of the idea
2. Scalability: The ability of the business to grow and expand
3. Team Composition: The qualifications, experience, and dynamics of the founding team
4. Market Readiness: The stage at which the business currently operates (e.g., early-stage, proof of concept)
5. Financial Stability: The financial health and viability of the business.

As shown in Chapter 4 through the interviews of both the managers and incubatees, the selection process may involve various stages, such as application reviews, interviews, business plan assessments, and pitch presentations.

The selection of the right incubatees is paramount to ensure the success of the incubator, as it directly influences its performance in terms of financial sustainability, reputation, and long-term impact on the ecosystem (Ssekiziyivu and Banyenzaki, 2021). This dissertation has shown that there are several ways in which the incubatee selection process can affect the incubator's performance, the reviewed literature and the data collected align in this respect and these may include the following:

1. Improved success rates of incubatees: Selecting businesses that are better suited to the incubator's offerings will likely lead to higher success rates. Businesses that align with the incubator's expertise and resources are more likely to thrive and achieve growth. This, in turn, will enhance the incubator's reputation as a

successful environment for nurturing businesses, leading to greater interest from future applicants and investors (Njau, 2022)

2. Resource optimization: The selection process ensures that resources are allocated to the businesses most likely to benefit from the incubator's services. By carefully choosing incubatees with high growth potential, the incubator can avoid overextending its resources on businesses that may not succeed, thus optimizing the use of its support, mentoring, and funding (Njau, 2022).
3. Long-term sustainability: Incubators that consistently select high-potential businesses are more likely to achieve long-term sustainability. A strong track record of successful incubatees will attract further investment, government support, and partnerships, ensuring that the incubator remains viable in the long run (Njau, 2022).

The engagement with the managers of NCI showed that the selection process is a fundamental driver of an incubator's performance. The managers argued strongly that NCI has over the years adopted a well-rounded, data-informed, and transparent selection framework, which considers both the human and business aspects of the incubatees and tends to see more successful outcomes. Additionally, the managers are of the firm view that the alignment of NCI goals with those of their incubatees, a balanced risk approach, and a strong post-incubation support system are all critical elements that contribute to the long-term sustainability and impact of the incubator. It is, however, worth noting that the findings also showed that NCI performance has, over a period, significantly improved by refining the selection process and incorporating diverse perspectives.

5.3. Recommendations

1. Contemporary business incubators need to establish well-defined criteria for admissions and selection, as well as clear indicators for tracking progress and success. Graduation criteria should be consistent across all incubators within the value chain. Additionally, conducting post-graduation evaluations of operational progress can help improve the long-term survival and success of incubated businesses.
2. Prospective incubators should also assist rejected incubatees or entrepreneurs with how to apply for their programme. This can be done by hosting an open day for rejected and interested entrepreneurs on the requirements and documents required to join the NCI business. Potential incubatees should take the initiative to research and select a business

incubator that aligns with their specific needs, including asking important questions to ensure it is the right fit.

3. It is wise that NCI business also advertises on a variety of platforms so they can also get diverse incubatees all over South Africa, especially to share knowledge on how other businesses are manoeuvring in different parts of South Africa.

5.4. Limitations

It is noteworthy that this study has had valuable insights, but there are limitations that it has had, and these include the following:

1. **Dynamic Nature of the Industry:** The construction sector is influenced by rapid technological advancements and changing regulations, which may not be adequately captured in static selection criteria assessments.
2. **Measurement of Performance:** Defining and measuring the performance of incubators can be complex and subjective, leading to inconsistencies in research findings.
3. **Lack of Longitudinal Studies:** Short-term assessments may overlook the long-term impacts of selection criteria on incubatee success and overall incubator sustainability

5.5 Areas for Future Research

1. **Comparative studies:** Investigating the effectiveness of selection criteria across different types of incubators (e.g., technology-focused vs. construction-focused) to identify best practices.
2. **Quantitative study:** Conducting a study of this nature may help in measuring the relationship between selection criteria and the performance of an incubator.
3. **Longitudinal research:** Conducting long-term studies to assess how selection criteria influence incubatee outcomes over time, particularly regarding evolving market conditions.
4. **Stakeholder perspectives:** Exploring the viewpoints of various stakeholders, including incubator managers, mentors, and incubatees, to gain a comprehensive understanding of selection criteria effectiveness.

5. **Impact of technology:** Examining how emerging technologies, such as digital tools for project management and sustainability practices, affect selection criteria and incubator performance.
6. **Policy implications:** Researching the influence of governmental and regulatory frameworks on selection criteria and incubator effectiveness in the construction sector, with a focus on fostering innovation and growth.

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APPENDICES

APPENDIX A: INFORMATION LETTER

UKZN HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE (HSSREC)

APPLICATION FOR ETHICS APPROVAL

For research with human participants

Dear Participant,

I am Siyabonga Phakathi (204510471), a master's student at the University of KwaZulu-Natal, Westville Campus. I am conducting a study titled *An Assessment of Incubatee Selection Criteria and its Effect on National Construction Incubator Performance*. The aim of my research is to explore how the National Construction Incubator's selection criteria impact its overall performance. I would like to invite you to participate in an interview to share your experiences and insights on this topic.

“Please note the following important points:

- The information you provide will be used solely for academic research purposes.
- Participation is entirely voluntary. You are free to choose whether to take part, opt out, or withdraw at any time without any penalty.
- Your responses will be kept anonymous, and your identity will not be revealed in the study.
- The interview will last approximately 45 minutes and will take place via Zoom or Microsoft Teams.
- Any recordings or materials related to the interview will be stored in a password-protected file, accessible only to myself and my supervisors. These materials will be disposed of after five years in accordance with university policies.
- If you agree to participate, please sign the attached consent form (separate sheet provided for signatures)”.

You can contact me at:

Graduate School of Business, University of KwaZulu-Natal, Westville Campus, Durban.

Email: 204510471@stu.ukzn.ac.za

Cell: [REDACTED]

My supervisor is Professor Mihalis Chasomeris, also at the Graduate School of Business, University of KwaZulu-Natal, Westville-Durban.

Email: chasomerism1@ukzn.ac.za

For any ethics-related inquiries, please contact Ms. Phumelele Ximba at the Humanities and Social Sciences Research Ethics Committee, University of KwaZulu-Natal.
Email: ximbap@ukzn.ac.za
Phone: +27 31 260 3587

Thank you for considering your participation in this research.

DECLARATION

I, (full name of participant), confirm that I have read and understood the contents of this document and the nature of the research project. I consent to participating in the research study.

I understand that I have the right to withdraw from the project at any time, should I choose to do so. I am fully informed about the research's purpose and objectives. I hereby agree to participate.

I consent / do not consent to have this interview recorded.

SIGNATURE OF PARTICIPANT DATE

.....

APPENNDIX B: INTERVIEW GUIDE



Incubatee Interview Questions

1. Age of an Entrepreneur
2. Gender
3. What is the nature of your business?
4. When was your business established and for how many years has it been in operation?
5. Why did you join this NCI incubator in particular?
6. How was your business selected to be part of the incubator?
7. Do you come from an entrepreneurial background?
8. What services are you receiving from the business incubator?
9. What type of challenges do you face in running your business?
10. How long have you been in the NCI business incubator?
11. How have your business operations changed since getting into the incubator?
12. How many additional employees have you employed and has there been any increase
13. In your view, does the NCI provide a conducive learning environment?
14. Are you aware of the NCI selection criteria and in your view are they fair and transparent?
15. Do you think the selection criteria have contributed to the success of the incubatees?
16. Do you have any recommendations to improve the selection criteria of NCI?
17. Are business trainings provided by the business incubator to prepare incubatees for the market necessary and useful?
18. How are the feedback mechanisms regarding the incubator's services in your view?
19. Do you think that after exiting NCI your business will be sustainable and grow?
20. What would you add in order to receive the best assistance and services to your business from NCI?
21. Do you think the selection criteria have an impact on the performance of the incubator? Please explain.
22. Do you think the incubator can improve the selection criteria and how?

23. Do you think the development programmes offered by the incubator are helping your business?

Name of researcher: Siyabonga Wilson Phakathi

Student number: 204510471

Signature: _____

Date: _____

NCI Management Interview Questions

1. What do you understand to be the primary purpose of NCI and the reason for its establishment?
2. Was the vision of the incubator ever renewed? If so, when, and why?
3. How does the NCI select the incubatees?
4. Have the selection criteria changed over the years (2002 to 2022)? If so, how?
5. Has the change in selection criteria contributed to improved performance of the incubator and the incubatees? Please explain.
6. What has been the occupancy rate per annum in the incubator during the period 2002 - 2022?
7. How many of the incubatees graduated between 2002 – 2022?
8. To your knowledge, how many of these incubatees have achieved sustained growth (i.e., turnover, number of jobs created)?
9. What form of support – if any - is rendered to incubatees by NCI to help grow and sustain their businesses?
10. To what extent – if at all – do you attribute incubatee performance to the support rendered by NCI?
11. What sort of criteria does management use to monitor the performance of the incubator?
12. What methods does NCI use to obtain feedback from stakeholders including incubatees?
13. Do incubatees leave before the incubation period ends and what are the general reasons?
14. Does the incubator conduct exit interviews with incubatees and what has been the general feedback?
15. Does the incubator offer post-incubation support?
16. What are the most critical challenges for your business incubator?

Name of researcher: Siyabonga Wilson Phakathi

Student number: 204510471

Signature: _____

Date: _____

APPENDIX C: ETHICAL CLEARANCE

Siyabonga Wilson Phakathi (204510471)
Grad School Of Bus & Leadership
Westville Campus

Dear SW Phakathi,

Protocol reference number: HSSREC/00006029/2023

Project title: An assessment of incubatee selection criteria and its effect on National Construction Incubator Performance

Amended title: An assessment of incubatee selection criteria and its role on National Construction Incubator performance.

Degree: Masters

Approval Notification – Amendment Application

This letter serves to notify you that your application and request for an amendment received on 24 Feb 2025 has now been approved as follows:

- Change in title

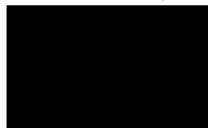
Any alterations to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form; Title of the Project, Location of the Study must be reviewed and approved through an amendment /modification prior to its implementation. In case you have further queries, please quote the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

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

HSSREC is registered with the South African National Health Research Ethics Council (REC-040414-040).

Best wishes for the successful completion of your research protocol.

Yours faithfully



.....
Professor Dipane Hlalele (Chair)

/dd

Humanities & Social Sciences Research Ethics Committee
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INSPIRING GREATNESS

APPENDIX D: NCI SELECTION CRITERIA EXAMPLE



APPLICATIONS FOR ETHEKWINI / NCI CONTRACTOR DEVELOPMENT PROGRAMME

CIDB GRADES 1-5

To ensure development of emerging contractors, the National Construction Incubator (NCI) in partnership with eThekweni Municipality hereby invites interested construction companies to participate in the Construction Incubator Programme. To be eligible to participate, you must:

- be residing within Inanda, Ntuzuma and KwaMashu (INK) areas
- CIDB grades 1 – 5
- Historically Disadvantaged Individuals (HDI) are encouraged to apply

The Programme is aimed at promoting the sustainable development of small to medium-sized contractors with a view to upskill and improve their CIDB grading designations over a period of up to three (3) years.

PROGRAMME SCOPE

The programme will be categorised as follows: 1 to 2 (pre-incubation programme) and 3 to 5 (mainstream), for Classes of Construction Works. The Programme constitutes mentorship, training and skills development support.

Applications are invited for contractors registered in the following Classes of Work (COW)

Pre-Incubation	Classes of Works	Mainstream Incubation	Classes of Works
CIDB Grade 1	GB, CE, EB, EP ME, SF, SK, SQ, SJ, SM, SN, SO & SH	CIDB Grade 3	GB, CE, EB, EP ME, SF, SQ, SK, SJ, SM, SN, SO & SH
CIDB Grade 2	GB, CE, EB, EP ME, SK, SQ, SF, SJ, SM, SN, SO & SH	CIDB Grade 4	GB, CE, EB, EP ME, SF, SK, SQ, SJ, SM, SN, SO & SH
		CIDB Grade 5	GB, CE, EB, EP ME, SF, SK, SJ, SQ, SM, SN, SO & SH

APPLICATION FORMS

An Expression of Interest (EOI) document will be available online at NCI website, www.natci.org.za and eThekweni Metropolitan Municipality's website, www.durban.gov.za

FOR QUERIES:

All Queries can be directed to Nompumelelo Nyawose at nyawose@natci.org.za

RETURNABLE DOCUMENTS

Interested contractors must complete the application forms and attach the following returnable documents:

- Proof of registration with the CIDB. EB-class of works to attach valid wireman's license registered under company's name. Contractors must be registered for at least one year with the CIDB.
- Certified Copy of the Entity Registration Documents (issued by the CIPC);
- Certified Copies of the Identity Documents of the Owners of the Trading Entity;
- Original, Valid and Authentic Tax Clearance Certificate issued by SARS;
- BBBEE Affidavit confirming BBBEE Status
- CSD Report and/MAAA number, this should be printed within 3 months;
- Proof of Residential Address within eThekweni and from the Inanda, KwaMashu and Ntuzuma or a up to date Municipal Account
- Contractors must be in business for at least 1 year
- Shareholder's Certificate
- A Curriculum Vitae of all the owners and senior management (if application)
- Latest signed annual financial statements
- Latest management accounts

ELIGIBILITY:

Preference will be given to the following contracting entities:

- Contractors with CIDB Grade 1 to 5 in GB, CE, EB, EP ME, SQ, SK, SF, SM, SJ, SN, SO & SH Classes of Works; registration longer than a year
- Companies owned by people residing - in Inanda; KwaMashu and Ntuzuma areas under the eThekweni Municipality.
- EME and QSE Emerging Contractors owned by Black Women, Youth and or People with Disabilities and;
- Contractors that are owned by South African Citizens (citizens of foreign descent will not qualify even if they have been naturalized);
- Project track record linked to the selected class(s) of works

NON-RESPONSIVE CRITERIA

The following contractors will NOT be considered:

- Joint Ventures will NOT be allowed;
- Individuals that are in the service of the state (even if they have approval from their respective employers);
- Contractors that are currently part of any other Contractor Development Programme.
- Participants who are NOT willing to be committed to training obligations of the programme;
- Applications outside the listed areas
- Non-South African owned companies
- CIDB Grading above the stated above

All applicants who score less than 70% of the total points requirements will not be considered for the next stage of evaluation assessment.

Due to limited space only contractors who meet the qualification criteria will be selected into the programme.



Application forms are available from the website: <http://natci.org.za> and www.durban.gov.za from: **20 JULY 2023, closing on 25 AUGUST 2023 at 16H00.**

Application forms will also be available as hard copy at NCI KwaMashu branch, Section M - 76 Bungezi Road, KwaMashu.

APPLICATIONS TO BE SUBMITTED AT NCI'S KwaMashu branch. A BOX WILL BE MADE AVAILABLE.

Contact: Mr Samkelo Mahlaba
Tel: 068 561 0127
E-mail: smahlaba@natci.org.za

Contact: Ms Lungile Ngubane
Tel: 031 311 4500

